WHOLESALER'S SALESMAN

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330 West 42nd Street, New York 18, N. Y.

Director of Circulation:
Please change my address on WHOLESALER'S SALESMAN

From .....

.....

.....

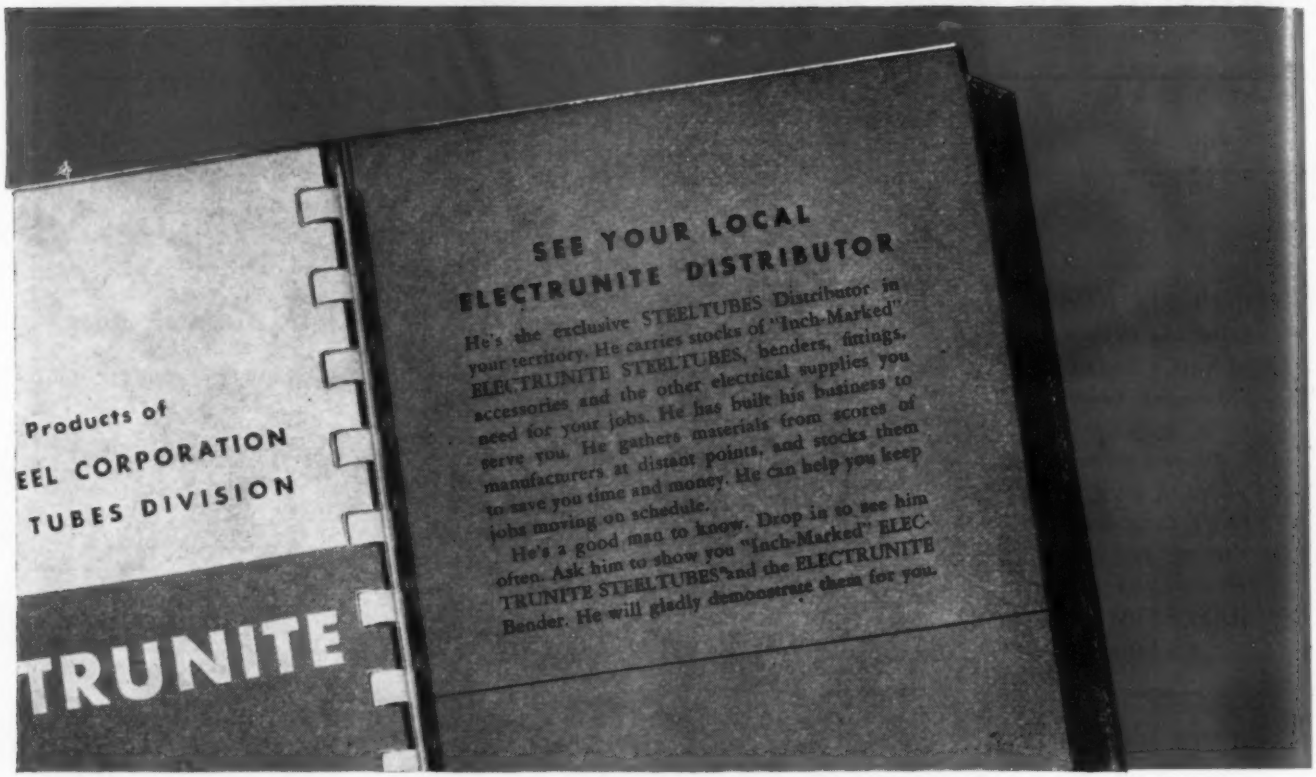
To .....

.....

.....

Signed .....

SURE, WE'VE BEEN TALKING ABOUT YOU ——AND HERE'S WHAT WE'VE SAID!


Products of
EEL CORPORATION
TUBES DIVISION
TRUNITE
SEE YOUR LOCAL
ELECTRUNITE DISTRIBUTOR
He's the exclusive STEELTUBES Distributor in your territory. He carries stocks of "Inch-Marked" ELECTRUNITE STEELTUBES, benders, fittings, accessories and the other electrical supplies you need for your jobs. He has built his business to serve you. He gathers materials from scores of manufacturers at distant points, and stocks them to save you time and money. He can help you keep jobs moving on schedule.
He's a good man to know. Drop in to see him often. Ask him to show you "Inch-Marked" ELECTRUNITE STEELTUBES and the ELECTRUNITE Bender. He will gladly demonstrate them for you.

● Republic ELECTRUNITE STEELTUBES—the steel electrical raceway that's so easy to handle and install—is sold *EXCLUSIVELY* through electrical wholesalers.

That's why we keep talking about the ELECTRUNITE Distributor in our advertising to electrical contractors and industrial maintenance men.

In our trade paper advertisements, literature and catalog files, we keep telling those who specify and use electrical raceways about your service and how you can help them.

If in this way we help "to keep you in the spotlight"—we help to establish and strengthen closer relationship between electrical wholesalers and their customers—we help to build distributor good will among electrical buyers.

And that means more business for you—more business for us!

We'd like your suggestions on how we can improve this job of helping you. Write us.

REPUBLIC STEEL CORPORATION
STEEL AND TUBES DIVISION • CLEVELAND 8, OHIO
Berger Manufacturing Division
Culvert Division • Niles Steel Products Division
Union Drawn Steel Division • Truscon Steel Company
Export Department: Chrysler Bldg., New York 17, N. Y.

REPUBLIC STEEL
PRODUCTION FOR VICTORY

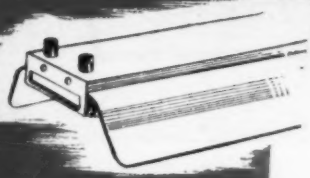
Republic "INCH-MARKED"
ELECTRUNITE
Steeltubes

ELECTRICAL METALLIC TUBING MARKED WITH A CONTINUOUS FOOT-RULE

'Guth Quick-Liter

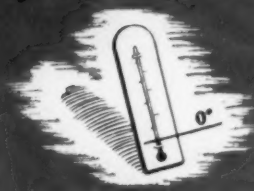
TRADE-MARK

The Original Starterless Fluorescent has proved itself in gruelling tests since July 1942!



The GUTH QUICK-LITER was first introduced for use in War Plants; where high maintenance costs due to Starter-Switch troubles, and variable line-voltage conditions, made *Starterless* Fluorescent desirable. Detailed performance records were constantly maintained on the tens of thousands in use, with the result that every claim for QUICK-LITER has been *proved* by use.

A valuable report on the results of these tests is now available. Write for your copy today

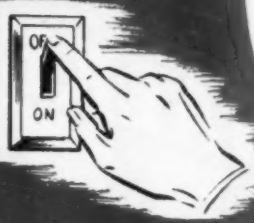


Would Operate in an Ice Box

GUTH Quick-Liters start and operate at as low as 0° F. 3,000 Quick-Liters are in daily use in Alaskan and Aleutian Island bases.

No Starter Switches

Maintenance cost is lower, and the problem of checking for "dead" Starters is eliminated.



Immediately Available

GUTH Quick-Liters can be shipped at once on AA-5, or AA-2-MRO, or higher priorities.

Lights Instantly

At the flick of the switch — there's light! No flickering, flashing or waiting.

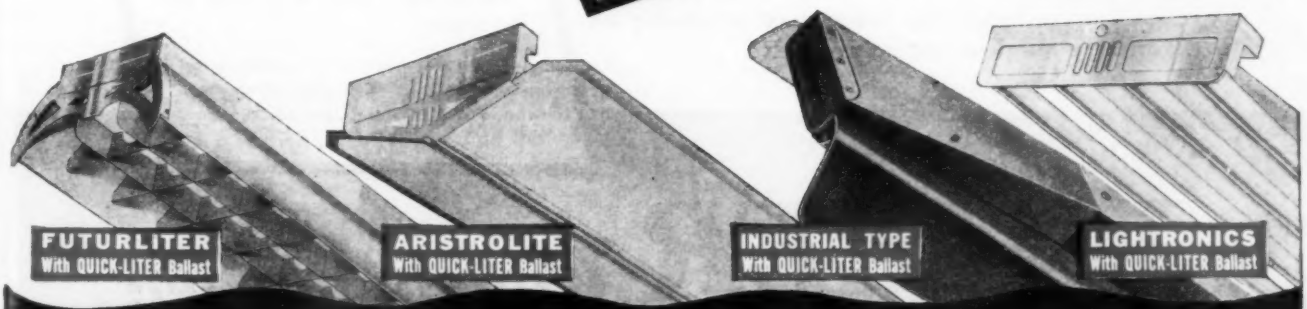
Long Lamp Life

Quick-Liter gets maximum usage from standard or special lamps. In many cases, lamps burned out on Conventional Ballasts and Starters operate on Quick-Liter.

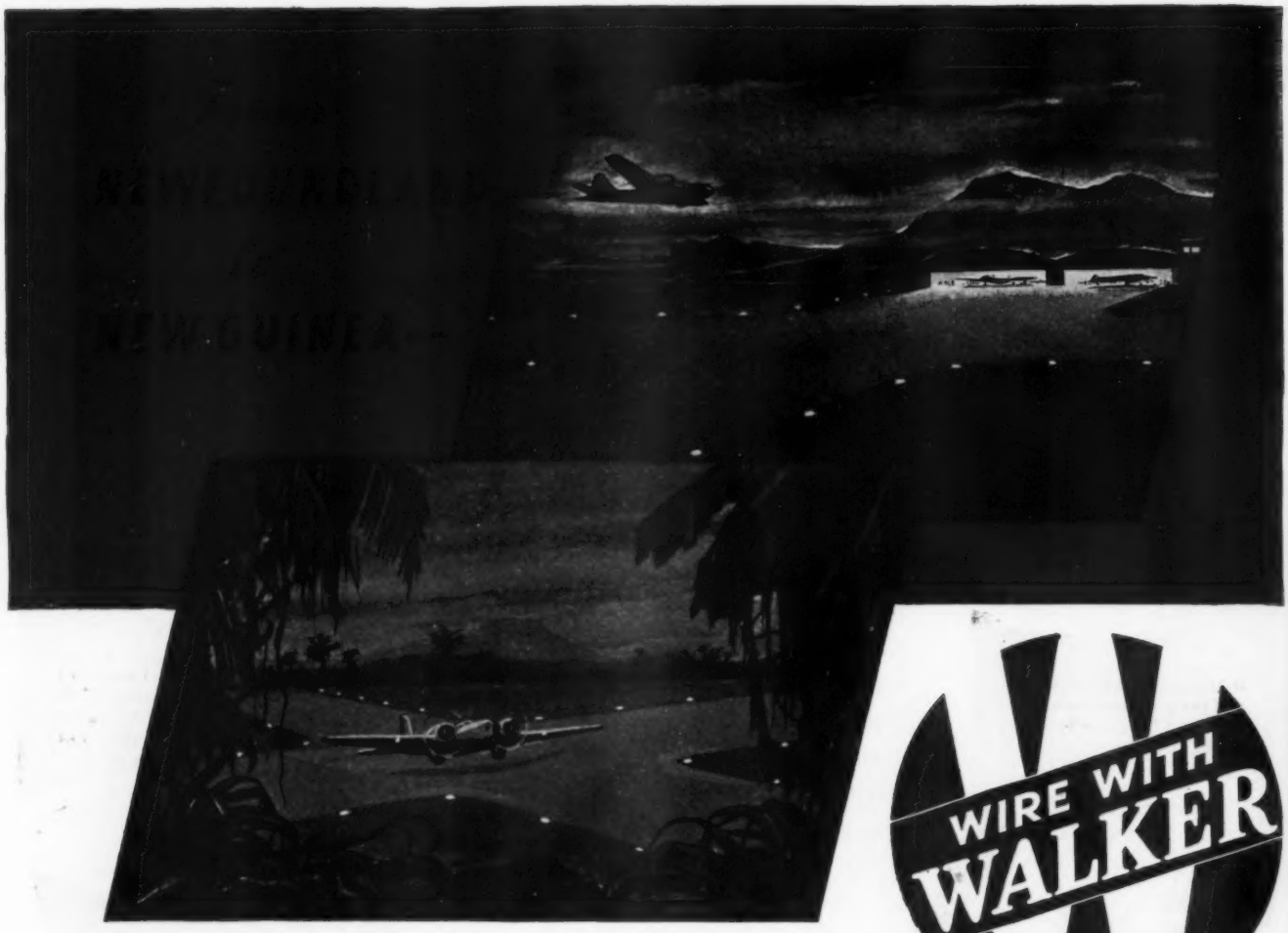
Operates at Irregular or Low Voltage

Heavy electrical loads in many plants cause low or irregular voltage. Quick-Liter starts and operates at as low as 85 Volts.

Leaders in Lighting **'Guth** *Since 1902*



THE EDWIN F. GUTH CO. • 2615 Washington Ave. • St. Louis 3, Mo.



WIRE WITH WALKER

Walker lead-covered cable helps to light our airfields!

Buried under the ice in Alaska . . . mired in the mud of jungle airfields, Walker lead-covered cable is proving its right to serve the contractors of America.

Under all kinds of soil conditions . . . in all kinds of climates all over the world, this cable is defying jungle dampness and desert drought — freezing under ice and frying in the sun!

Designed to meet the tough requirements of the Air Corps, it will more than answer every need of the home front. Walker of Conshohocken offers you a complete line of lead-covered cable and large rubber-covered wire that has proved its quality on the world's toughest testing grounds!

Other dependable products made by walker of Conshohocken

- "Walkerflex" Non-Metallic Sheathed Cables
- Service Entrance Cables
- Automotive Wires and Cables
- Shipboard Cables—Leaded, Non-leaded; Synthetic or Varnished Cambric Insulation
- Electric Metallic Tubing
- "Dualcote" Rigid Steel Conduit
- "Preset-Insert" Underfloor Distribution Systems

Ask your local distributor about prices and deliveries. For further information, write to Walker Bros., Conshohocken, Pa.

WALKER of Conshohocken

The BIG 3
In Fluorescent Fixtures

ALL MITCHELL FIRSTS

Today, more than ever . . . it's *MITCHELL Fluorescent* . . . for essential industrial and commercial lighting. Mitchell ingenuity has produced far-reaching advancements in design and construction—and set the pace for tomorrow's lighting needs. Each innovation has meant greater simplicity and efficiency, at ever lower cost.

Model No. 2075
"MITCHELITE" INDUSTRIAL FLUORESCENT FIXTURE
Model No. 2081
MITCHELL KOLD-VOLT COLD CATHODE FLUORESCENT FIXTURE
Surface or Suspension Mounting — Individually or in Continuous Rows
Model No. 2032
MITCHELL U.R.C. RESEARCH LUMINAIRE

MITCHELL KOLD-VOLT
Cold Cathode Industrial Fluorescent Fixture

The *first* cold cathode fluorescent in a standard "*packaged*" unit! Gives you *instantaneous starting—400% more lamp life—greatly reduced maintenance!* 4-light fixture—8 feet long overall—delivers a total of 8800 lumens of light. Average lamp life expectancy, 10,000 hours. Each lamp unconditionally guaranteed for one year.

"MITCHELITE" FLUORESCENT for Industrial Lighting

First all-purpose "lightweight" fluorescent fixture for war industry! Offers amazing simplicity, efficiency and flexibility at low cost. Provides for every method of mounting or hanging. 3 models: 2 and 3-light units using 40-watt lamps; 2-light unit using 100-watt lamps.

MITCHELL U.R.C. RESEARCH LUMINAIRE for Offices and Drafting Rooms

First introduced by MITCHELL. Combines the ultimate in high intensity illumination with low surface brightness (glare). Uses four 40-watt lamps. Takes less time to install than any other commercial fixture.

Get complete information from your MITCHELL DISTRIBUTOR or write for New Catalogs No. 278-280

MITCHELL FLUORESCENT

MITCHELL *Manufacturing Company*
2525 CLYBOURN AVENUE • CHICAGO 14, ILLINOIS

Presenting

THE COP

(Cut-Out-Premium)

STARTER

"One of Sylvania's Finest"

The COP (Cut-Out-Premium) Starter is ready to patrol your fluorescent installation to protect your lighting investment. The COP brings you the finest method yet designed by Sylvania engineers to cut a failed lamp out of the circuit.

The COP is equipped with a handy push button to reset the positive new circuit breaker. When you replace a failed lamp, you just push the button, and the COP continues to operate normally until another lamp fails.

The COP has shown a life expectancy five times that of the average starter in months of exhaustive tests under all possible operating conditions. That is why Sylvania particularly recommends the COP as a means of reducing the cost of maintaining fluorescent.

The COP stops annoying lamp blinking and flickering by cutting a failed lamp out of the circuit immediately.

The COP guards your electric meter, preventing waste of current.

The COP protects the ballast from overheating.

Post the COP, Sylvania's finest quality starter, on your own fluorescent "beats." For information, write to Sylvania Electric Products Inc., Boston Street, Salem, Massachusetts.

SYLVANIA FS GLOSTAT STARTER

WITH BETTER THAN EVER PERFORMANCE

A metal flag is spot-welded to the stationary contact post in the gas-actuated Sylvania FS Glostat Starter. This metal flag assures correct lamp cathode preheating. The new FS Glostat Starter is quicker-starting, can take rough handling, and preheats adequately for maximum lamp life. Recommended by Sylvania engineers for economy and efficiency in smaller fluorescent installations.

One Standard—the Highest Anywhere Known

SYLVANIA

ELECTRIC PRODUCTS INC.

SALEM, MASSACHUSETTS

FLUORESCENT LAMPS, FIXTURES AND ACCESSORIES, INCANDESCENT LAMPS, RADIO TUBES, CATHODE RAY TUBES, ELECTRONIC DEVICES

WHETHER YOU USE IT OUTDOORS

WHERE IT'S EXPOSED TO THE WEATHER

OR INDOORS

WHERE IT'S WARM

AND DRY

OR UNDERGROUND

WHERE IT'S ALWAYS DAMP

YOU'LL FIND GOLD SEAL FRICTION TAPE

STICKS LIKE A

LEECH

HERE'S WHY - - If there's one quality users want in tape more than any other, it's *tackiness* – the ability to "stay put" wherever it's used. And tackiness is where Gold Seal Friction Tape shines! It sticks to the job like an umpire clinging to a close decision!

Gold Seal's tackiness comes from a formula developed by Jenkins Bros. Rubber Research Laboratories after months of testing. This compound of extra adhesive strength *coats both sides* of a fine quality base cloth. That's why Gold Seal Tape doesn't "peel" or dry out like ordinary tape . . . why it handles right and sticks tight right down to the last tenacious inch of the roll.

Gold Seal is fresh-wrapped in cellophane to reach your customers fresh . . . made by Jenkins Bros., Rubber Division, 80 White Street, New York 13, N. Y.

JENKINS

Jenkins Bros. also make Diamond Seal Friction and Rubber Tapes which meet ASTM and Federal specifications.

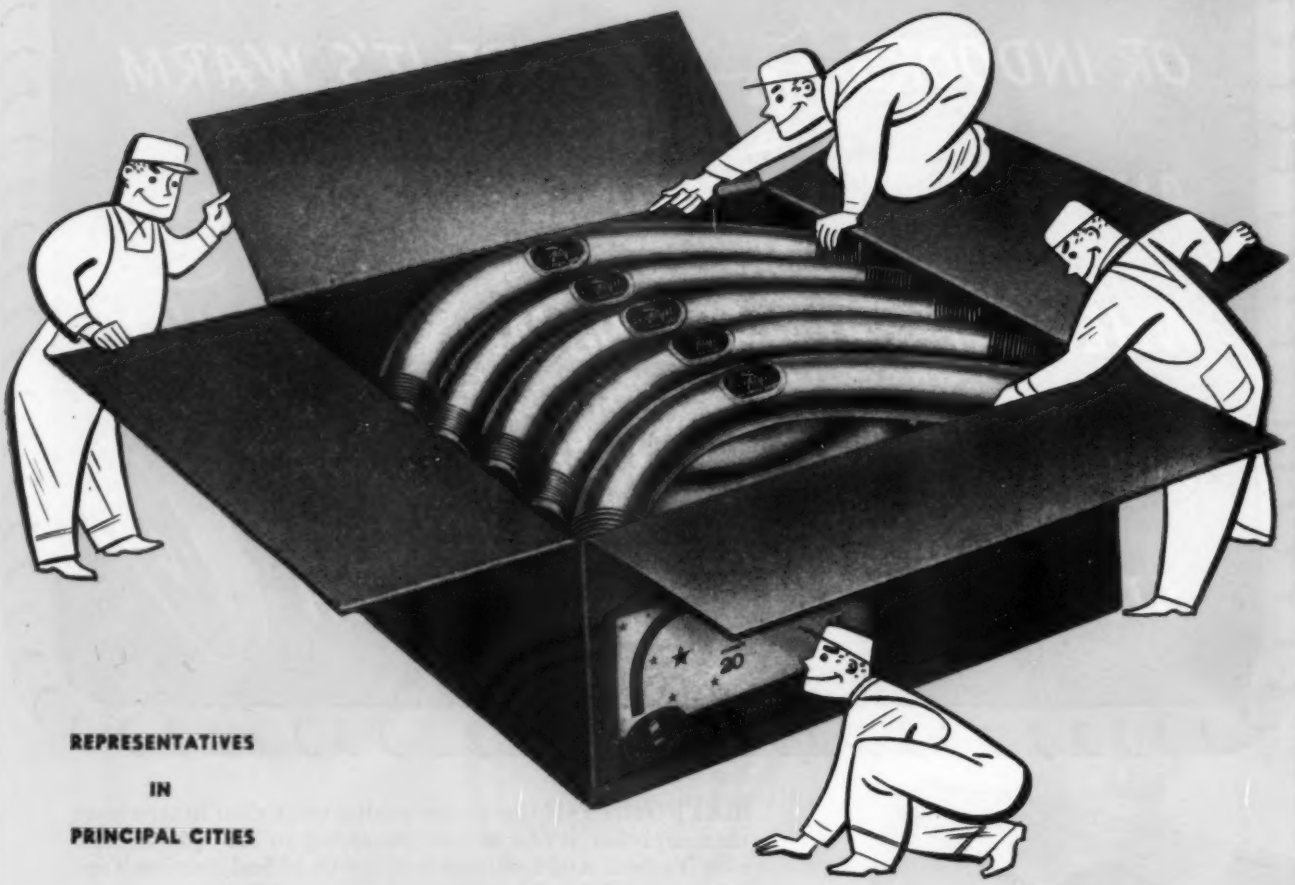
Gold Seal Tapes

FRICTION and RUBBER TAPES

MADE BY JENKINS BROS. . . . MAKERS OF FAMOUS JENKINS VALVES

EVERYBODY'S HAPPIER...

with CONDUIT Cartoned Ells



REPRESENTATIVES
IN
PRINCIPAL CITIES

Conduit Elbows are properly fabricated in accordance with U. L. Specs., perfectly threaded, correctly bent . . . the cartoning idea originated by Conduit gives you a "plus" by assuring greater ease and convenience in handling, stocking and stacking, protection to starting threads and handy carton weights. Jobber, counterman, truckman, electrician . . . right down the line, each one's job is made easier with Conduit Cartoned Ells.

Conduit

PIPE PRODUCTS CO.
COLUMBUS, OHIO

PIPE COUPLINGS PIPE NIPPLES ELBOWS, 90° AND 45°
RUNNING THREAD PIPE GOOSENECKS WALLPLATES

PARANITE WIRE AND CABLE CORPORATION

Division of

ESSEX WIRE CORPORATION
JONESBORO, INDIANA

YOUR CUSTOMERS HAVE SEEN THIS ADVERTISEMENT IN Collier's

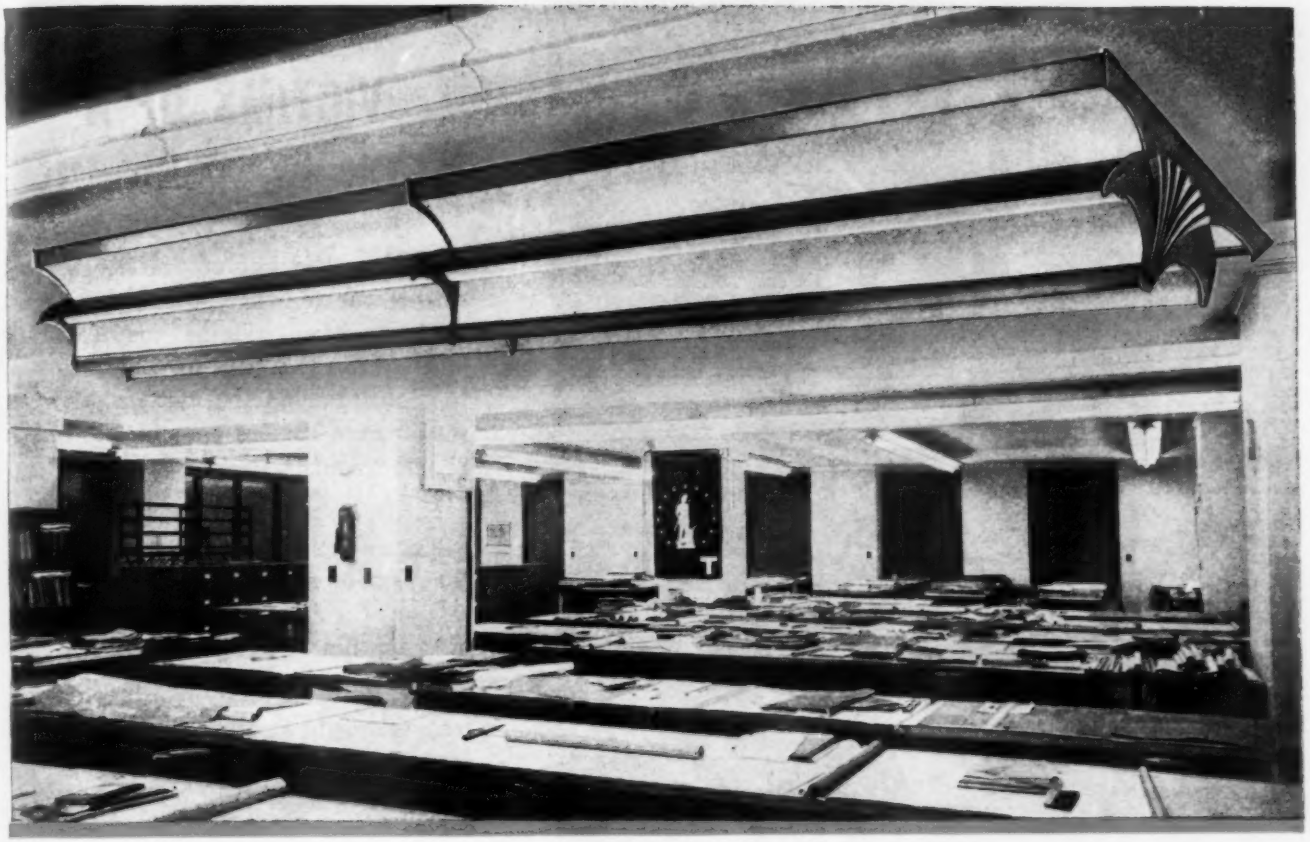
"What's a summer resort got that we haven't got?"
We've got breezes right on tap with our Emerson-Electric Fan
"Sure—we'd like to see some new scenery . . . but we are at war on the home front, too, and I agree with Uncle Sam that pleasure trips must wait until after Victory. We can enjoy ourselves right here with our trusty Emerson-Electric Fan, plus all the conveniences of home. We've been through plenty of hot summers together . . . and that good old fan's kept us cool and comfortable when other folks were limp and sweltering.
"Oh, I know we're lucky—because nowadays fans are not being made for civilians. But just the same, we were pretty smart, too, when we chose the kind of fan we could really depend on! We bought our Emerson-Electric Fan with a five-year guarantee—fifteen years ago—and it's still going strong. Of course, we've taken care of it—and you can bet we'll go on taking care of it. We'll keep 'er blowin' 'til this war's won—and long afterwards, too!"
THE EMERSON ELECTRIC MANUFACTURING CO.
SAINT LOUIS 2, MO.
Branches:
New York • Chicago • Detroit • Los Angeles • Davenport
THREE WAYS TO KEEP YOUR EMERSON-ELECTRIC FAN ON THE JOB
1. Don't wait. Check your fans now and you will be sure they are ready when you need them.
2. If they operate satisfactorily, clean them thoroughly, and oil with [illegible] mineral oil, grade SAE 10 or 20.
3. If there is any unusual noise or vibration, due to worn parts, or faulty electrical connections, take the fan to your Emerson-Electric Dealer or Electrical Repair Shop for repairs. (Generally, if your Emerson-Electric Fan is not more than 20 years old, parts are available.)
TODAY Emerson-Electric power-operated gun turrets and electric motors for aircraft are in active service on all battle fronts of the world.
EMERSON MOTORS · FANS
EMERSON ELECTRIC
ELECTRIC APPLIANCES

RE-SELLS . . . SELLS!

392

In the interests of Emerson-Electric Wholesalers and Retailers, this COLLIER'S May 6th page advertisement *re-sells* present owners on their "trusty Emerson-Electric Fan"—*sells* postwar prospects on the reasons for demanding Emerson-Electric Fans—creates fan servicing business for Retailers who maintain such departments.

3. "If there is any unusual noise or vibration, due to worn parts, or faulty electrical connections, take the fan to your Emerson-Electric Dealer or Electrical Repair Shop for repairs. (Generally, if your Emerson-Electric Fan is not more than 20 years old, parts are available.)"



The Curtis SKYLUX

for Two 40-Watt Fluorescent Lamps

Here is the most outstanding two-lamp fixture on the market! Check over these features . . . First, SkyLux is scientifically shielded to prevent a direct view of the lamp from ordinary angles . . . next, the baked snow-white Fluracite reflecting surfaces direct the light downward without trapping any of the output of the lamp . . . Then, because there are no horizontal surfaces to collect dust, SkyLux is easily maintained at peak efficiency throughout the life of the unit . . . These features, plus the fact that SkyLux can be ceiling or pendant mounted individually, as well as in continuous lines, make it the logical choice for office lighting installations.

CURTIS Lighting, INC.

6135 WEST 65TH STREET, CHICAGO 38, ILLINOIS

VICTIMS OF A "MECHANICAL BRAIN"

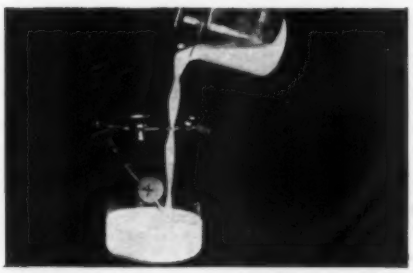
Zeros knocked out of the sky at the rate of one to every 90 rounds of ammunition fired! That's the feat our anti-aircraft batteries are performing in the South Pacific. During World War I, the average was but one plane to every 17,000 rounds.

Credit is due largely to the new M9 gun director—a "mechanical brain" that aims a battery of four 90mm. guns and sets their fuses. Everything is done mathematically by electricity.

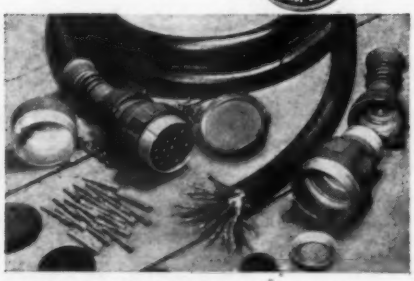
The delicate synchronization of tracker, height finder, computer, power rectifier and altitude converter depends on scientific perfection of the electrical cable.

Laytex Portable Cable, developed by U.S. Rubber Company engineers, is used throughout. It transmits the data for lightning-fast calculation without chance of human error, resulting in fire control of deadly accuracy. Results attest how exactly this cable meets this specialized need.

Laytex WIRES AND CABLES SERVING THROUGH SCIENCE



PURIFIED LIQUID LATEX is used for Laytex Wire and Cable Insulation. A special process removes moisture and water-soluble impurities. Laytex insulation—whether made from either natural or synthetic rubber—has exceptional dielectric strength.



CABLE AND PLUG ASSEMBLY for the M9 gun director. Laytex Insulation developed by U.S. Rubber Company engineers is built up into a homogeneous unit around the perfectly centered wires by an exclusive process of repeated dipping and drying, followed by vulcanization.

TOMORROW'S PROMISE — Although the entire output is still going to meet critical war needs, a day will inevitably arrive when we shall again supply U. S. Laytex Wires and Cables for Buildings, Police and Fire Alarms, Communications, Signalling, Power and Control.

Listen to the Philharmonic-Symphony program over the CBS network Sunday afternoon, 3:00 to 4:30 E.W.T Carl Van Doren and a guest star present an interlude of historical significance.

UNITED STATES RUBBER COMPANY

1230 SIXTH AVENUE, ROCKEFELLER CENTER, NEW YORK 20, N. Y. • *In Canada:* DOMINION RUBBER CO., LTD.

BACK AGAIN

POPULAR "DAY-LINE" INDUSTRIAL FIXTURES

Again Available with Porcelain Enamel Reflectors

HEAVY-DUTY RLM DAY-LINE — always the favorite because they combine the ultimate in lighting efficiency with quick installation "ICE-TONG" hangers, low-cost maintenance and easy accessibility.

The RLM DAY-LINE
Single unit, for two or three 40-watt or two 100-watt lamps. Bulletin F-77.

The RLM DAY-LINE
Continuous runs, for two or three 40-watt or two 100-watt lamps. Bulletin F-77.

DAY-LINE
"W" and "WS" Series with "Snap-on" Reflectors

The "W" Series — non-metallic reflectors with Day-Brite's exclusive "Super-White" enamel . . . The "WS" Series — porcelain enamel reflectors . . . Both types available for single-unit installation in two 40-watt, three 40-watt and two 100-watt models . . . Bulletin F-76.

GET FULL INFORMATION

Contact your local Day-Brite engineering representative or write for the Bulletins which contain complete, valuable information fully describing and illustrating both continuous and unit mounting Day-Line Fixtures—including dimensions, mounting diagrams, photometric data, weights and prices.

DAY-BRITE LIGHTING, INCORPORATED
5442 Bulwer Avenue — St. Louis 7, Missouri

Day Brite LIGHTING FIXTURES

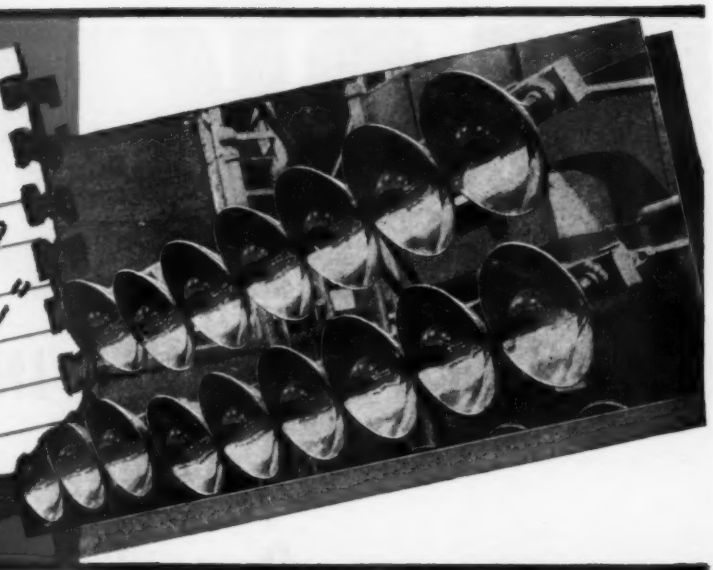
DAY-BRITE
The Sign of Quality
Look for this Label

77

Nationally distributed through all leading electrical supply houses

the problem

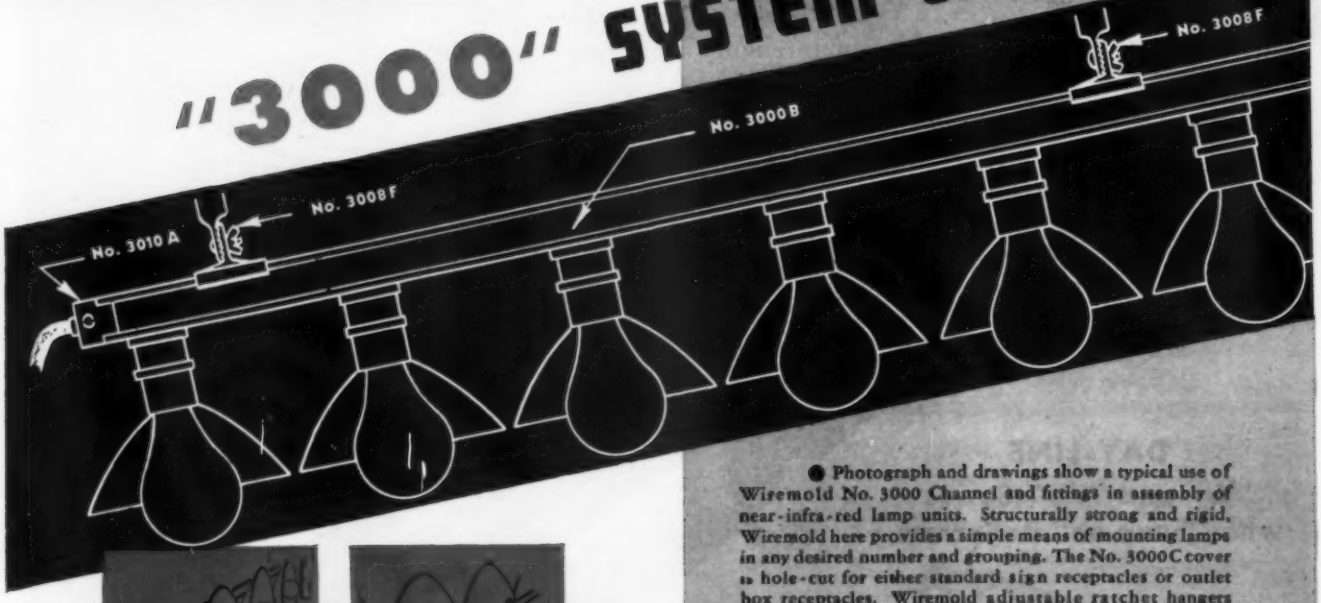
Specialized Wiring for infra-red "oven" installations

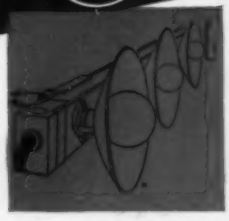


the answer

WIREMOLD

"3000" SYSTEM-WIRING





VIEW FROM FRONT

VIEW FROM REAR

● Photograph and drawings show a typical use of Wiremold No. 3000 Channel and fittings in assembly of near-infra-red lamp units. Structurally strong and rigid, Wiremold here provides a simple means of mounting lamps in any desired number and grouping. The No. 3000C cover is hole-cut for either standard sign receptacles or outlet box receptacles. Wiremold adjustable ratchet hangers (3008 F) permit necessary adjustment in the banks. Wiring is safely enclosed and protected with channels.

We present this as a specific example of the many hundreds of different ways in which Wiremold is today helping industry gain efficiency while saving time and expense in meeting specialized wiring and lighting needs.

Send for new Industrial Wiring Bulletins and engineering data sheets.

WIREMOLD CAN HELP YOU PRODUCE FOR WAR . . . WHILE YOU PLAN FOR PEACE!

KNOW YOUR

WIREMOLD

AND YOU KNOW THE ANSWERS

NEMA

THE WIREMOLD COMPANY HARTFORD 10, CONN.

ARMY E NAVY

A BULLDOG MESSAGE FOR WHOLESALERS

This reproduction of a current industrial magazine advertisement contains valuable information for wholesalers and their salesmen

PLUG IN ANYWHERE ALONG THE LINE —WITH BULLDOG BUSTRIBUTION DUCT

This photo shows BullDog Bus Duct used on welder circuits. Note the short cable runs from overhead Plugs.

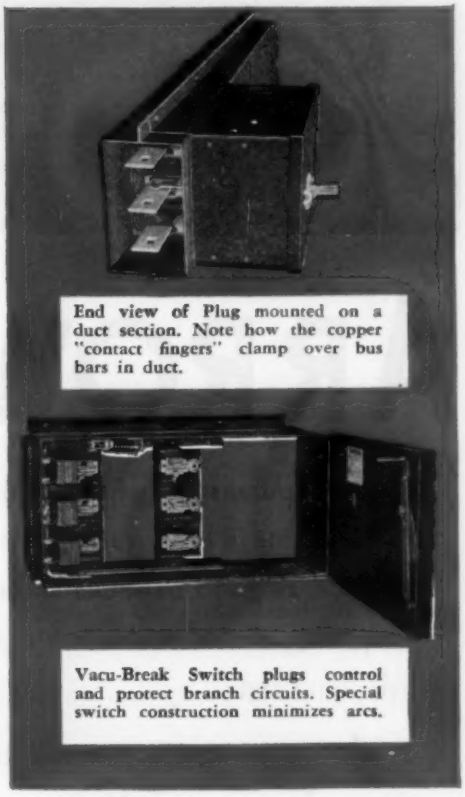
When you install Bus Duct, you wipe out a great many of your electrical power problems.

You can add new machines at will or move old ones to any location because ten plug-in openings are available in each standard 10-foot section of safely-enclosed duct casing.

This gives your workers a constant flexible source of power that is safe . . . convenient . . . clean . . . efficient.

Also, Bus Duct can be easily and quickly installed. Any plant electrician with a couple of helpers can put it up. And it is 100% salvable.

Those plants which have Bus Duct will be a long step ahead in reconverting to peace production. Our field engineers will be happy to help you with *your* power problems. Write today for complete descriptive Bulletin No. 427.



End view of Plug mounted on a duct section. Note how the copper "contact fingers" clamp over bus bars in duct.

Vacu-Break Switch plugs control and protect branch circuits. Special switch construction minimizes arcs.

Buy More War Bonds
Get In Your Scrap

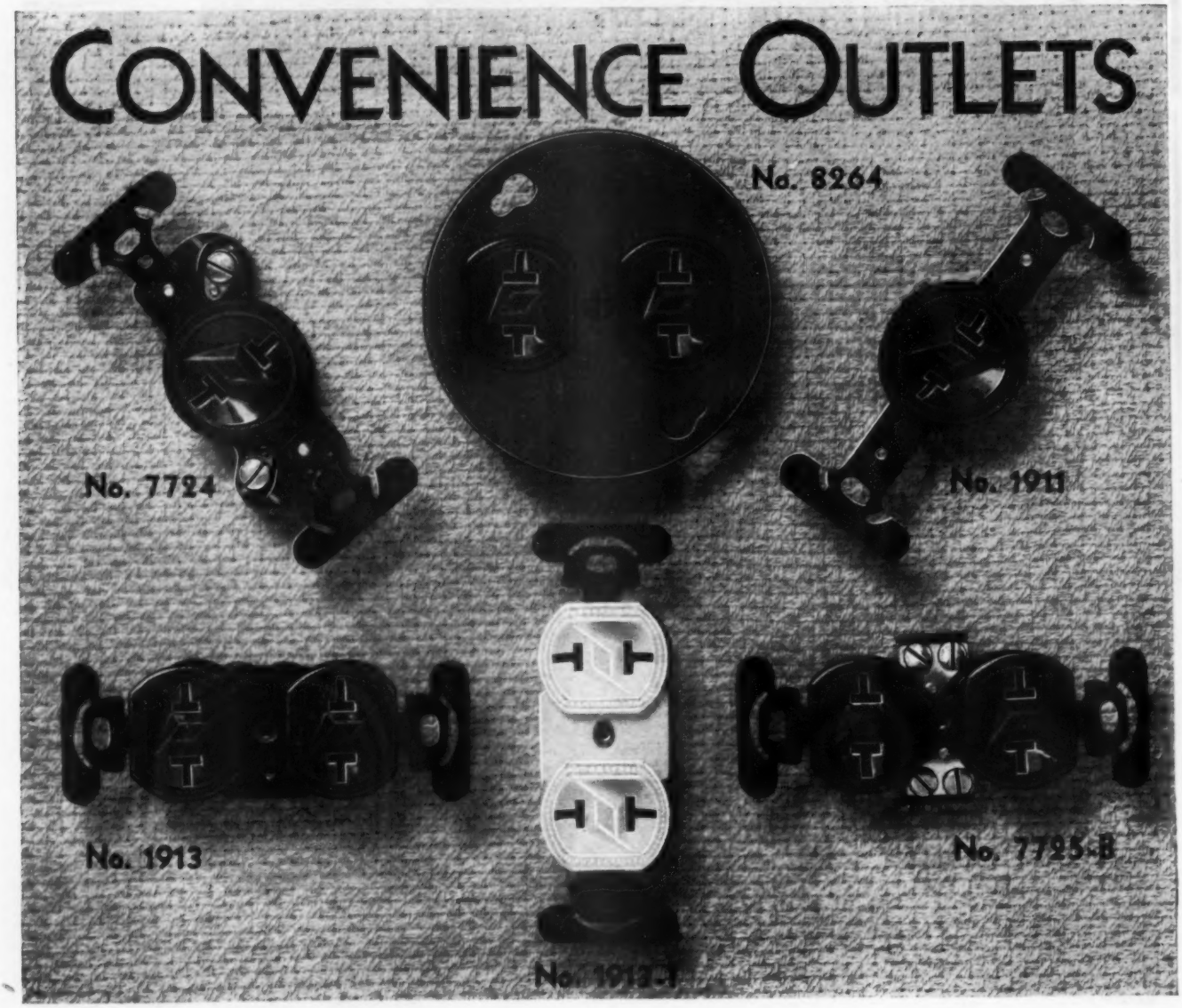
BULLDOG
ELECTRIC PRODUCTS CO.

BOX 177, R. PK. ANNEX
DETROIT 32, MICHIGAN
BullDog Electric Products of Canada, Ltd., Toronto, Ont.

Field Engineering Offices in All Principal Cities

ALSO MANUFACTURERS OF

VACU-BREAK SAFETY SWITCHES • SAFTOFUSE PANELBOARDS • SWITCHBOARDS • CIRCUIT MASTER BREAKERS • UNIVERSAL TROL-E-DUCT, *for flexible lighting* • INDUSTRIAL TROL-E-DUCT, *for movable "loads."*



ARROW all-purpose numbers for flush or surface work

These popular types of Convenience Outlets are available in brown and white "Ivorylite" plastics, as good in looks as they are good in quality. T-slot, with double side-contacts, self-adjusting.

No. 7724—Single, top-wired, Bakelite; No. 8264—Duplex, with 3¼" outlet box cover (4" also supplied); No. 1911—Single, side-wired, Bakelite; No. 1913—Duplex, side-wired, Bakelight; No. 1913-I—Duplex, side-wired, Ivorylight; No 7725-B—Duplex (4 Screws) top-wired, Bakelite. Just the group you need for carrying-on.

ARROW ELECTRIC DIVISION

DISTRIBUTED THROUGH ELECTRICAL WHOLESALERS

THE ARROW-HART & HEGEMAN ELECTRIC COMPANY, HARTFORD, CONN., U.S.A.

TIMES and TRENDS

Bond Cover We consider it a privilege to cooperate with the United States Government in its 5th War Loan Bond Selling Drive, by reproducing a copy of one of those precious bonds on the cover of this issue.

For the man or woman, who works for a living there is no simpler nor safer way of investing savings or putting aside a definite part of each pay check, than that of buying War Bonds. There can be no question of safety with the resources of the entire United States backing up the bonds. The interest rate is as high as can be offered, consistent with the security that is behind the bonds. The terms of purchase can be arranged to suit the needs of each purchaser.

Help to put this War Loan Drive over the top in record time. BUY ONE OF THOSE BONDS TODAY.

★

Your Future Markets Through the splendid cooperation that has been extended to us by N.E.W.A. and its staff and by Herb Metz and his Post-War Planning team of Ingraham-Latham and Hall, we are able to present in this issue the complete report of the Post-War Planning Committee and that of the Appliance Sub-Committee.

We urge upon every electrical wholesaler and salesman the most careful study of Mr. Metz's report. It contains a wealth of valuable information that has been gathered and digested for the special benefit of the electrical wholesaling industry. Properly used the contents of this report can serve as a valuable guide in the planning that every alert wholesaler will want to do on his own account at this time.

In the presentation "Potential Appliance Markets in 1946" the Appliance Sub-Committee has made available to the industry a most interesting study and a formula that should prove of inestimable value in determining markets for specific appliances in specific territories.

We extend our sincere thanks to Messrs. Fife, Metz, Latham, Ingraham, Hall and Pyle for advice and assistance given that made possible and facilitated the publishing of these reports in this issue.

Housing Angles We admit that many of the predictions of future building booms that we hear about today are just so much "eye wash" produced with the hope of getting publicity for the perpetrator. A few prognostications have been made that were backed by sound reasoning based on known facts. Now the Edison Electric Appliance Co., Inc., comes along with the report of a survey that provides a unique yardstick in that it records the actual plans of people, not just opinions.

Briefly: 4,000 answers from 48 states were tabulated. Sixty-one percent of those self-confessed prospective home builders now live in rented quarters. Of the remaining 39 percent who already owned a home, only 56 percent propose to build modern homes while the other 44 percent will modernize the home they now own.

As to the cost of the new homes that this group proposed to build: More than 85 percent plan to spend from $4,000 to $8,000.

★

Appliance Angles The survey referred to in the previous item also provided some first-hand knowledge of what those prospective home owners hope to buy in the way of electrical appliances.

Electric clothes washers led the list with 57 percent expecting to buy. Next electric ranges, 55 percent; electric refrigerators, 52 percent; base and wall cabinets, 49 percent; water heaters, 45 percent; dishwashers, 44 percent; ironers, 40 percent; garbage disposers, 38 percent.

Even if you cut those percentages in half, it looks as if there is a huge volume of appliance business in the offing and the electrical wholesalers who are smart, will get ready now. In planning, the setting up of a separate radio and appliance department should be considered an absolute necessity, so that the regular business on supplies and wiring materials will not be neglected.

(Continued on page 25)

THE MORE
THE MORE
MAZDA
WESTINGHOUSE
B-R-I-G-H-T
FROM END TO END

SPARKLE IN THE POWDER . . .

The greater the care in selection and compounding of phosphor powders for fluorescent lamps, the greater the brightness from the lamp, and the more See-ability the lamp produces in service.

Westinghouse research engineers found, for example, that foreign substances in a batch —*just one part in a million*—make an appreciable difference in light output.

To eliminate these impurities, Westinghouse research has devised new and effective purification processes. A carefully planned and meticulously controlled routine of acid washing, high-temperature firing, grinding, mixing and blending, assures maximum purity and brightness performance in the finished phosphor.

Take advantage of this persistent Westinghouse research and product improvement, recommend bright, long-lasting Westinghouse Mazda Lamps for every lighting application and installation.

While much of our fluorescent production is earmarked for war industry, we are continuing as far as possible to supply fluorescent lamps for essential civilian use. Westinghouse Electric and Manufacturing Company, Bloomfield, New Jersey.

SEE-ABILITY FROM THE LAMP

Westinghouse
PLANTS IN 25 CITIES . . . OFFICES EVERYWHERE
MAZDA LAMPS FOR SEE-ABILITY
WESTINGHOUSE PRESENTS JOHN CHARLES THOMAS • SUNDAY 2:30 EWT., N.B.C. •
"TOP OF THE EVENING" • MON. WED. FRI. 10:15 EWT., BLUE NET.

(Here's another ad in the series that brings a vital message to your customers.)

Unwired planning will cost you a whole lot more than planned wiring

Lack of adequate electrical wiring will be expensive in a lot of postwar directions . . . in decreased production efficiency . . . in higher power costs . . . in eventual expense of catching up with competition.

No matter what your postwar plans for conversion, new equipment, plant improvements or new products—you can't take full advantage of any of them without adequate power . . . and that means *adequate wiring.*

Right now is the time to start thinking about the wiring *in your plant.* Bring your consulting engineer and the electrical contractor into your advance planning. Remember . . . electrical power is dead sure to play a constantly increasing role in future production—and wire is the harness. Horsepower—on farm or in factory—is useless without adequate harness. 44225

Let's All Back the Attack . . . BUY MORE WAR BONDS

ADEQUATE WIRING SERVES AND SAVES

ANACONDA

ANACONDA WIRE & CABLE COMPANY

25 Broadway, New York 4 . . . Sales Offices in Principal Cities

Electrical Wires and Cables of Copper are the Life Lines of our Nation

(*Continued from page 21*)

711 Seven-eleven is a well known expression closely associated with a certain popular game of chance. At the moment of this writing that number happens to be symbolic of N.E.W.A. too, in a manner of speaking. It represents the total membership of the Association, as of this reporting.

Unlike the popular game of chance, however, N.E.W.A.'s present 711 has been gained by good planning, hard work and wide-spread membership cooperation during the past year and a half. Nothing was left to chance; but rather the careful direction and leadership of President Fife, plus the hard work of Managing Director Pyle and plus the cooperation of past N.E.W.A. Chairman L. E. Latham and Appliance Division Chairman Ingraham are responsible for this outstanding Association growth.

The count is 711 now, but the immediate future program for N.E.W.A. activities assures the steady and constant increase of membership way beyond that number. (Due to the fact that this department got its signals mixed, we were unable to include "Al" Byers' monthly page of NEWA news in this issue but we simply had to squeeze the above significant item into this department, because it seemed too hot to hold over.)

★

Practical Salvage While making webbing for the Army, The Wiremold Company had to deliver in certain specified length. Since the large reels of the webbing did not always divide evenly, quite a stock of short lengths accumulated.

A Mid-Western manufacturer of hickory furniture got wind of that pile of short lengths, bought them, put his designers to work on a line that would utilize the Wiremold-made webbing for seats and backs and then offered the Andrew Jackson (Old Hickory) summer furniture group to his trade with excellent results.

We wonder how many other war plants have piles of short-ends, cuttings, waste, etc., that would inspire designers of badly needed consumer goods to develop their utilization, resulting in profit to the salvage genius and pleasure for the public.

★

Rural Markets In a recent issue *Electrical World* estimates that when materials become available, new lines might be built to serve in excess of a million and a half farms which, when figured at a density anywhere near two-to-a-mile, would mean three quarters of a billion dollars in new electrical construction. Also there are said to be approximately 400,000 farms now within reach of existing lines which should be connected as soon as possible.

Obviously rural electrification plus the resulting sales of lighting fixtures, appliances, electric farm tools and machinery, can be expected to account for quite a slice of the alert wholesalers' post-war sales volume—When that "Back-Log" Spending Boom Breaks.

Straws With increasing frequency we receive information from various sources on the potential post-war sales of this or that product. Here are two worth mentioning:

Our good friend Larry E. Gubb, chairman of the board, Philco Corporation, in an address before the Bond Club of Philadelphia, estimated that by the end of 1944 the pent-up demand for radio receiving sets will have mounted to between 20,000,000 and 25,000,000 sets.

In a recent interview, J. S. Sayre, president of the Bendix Home Appliances, Inc., stated that company surveys, cross-checked by independent research organizations, indicate a market for 500,000 Bendix washers in the first post-war year against a total of 125,000 turned out in the best pre-war year.

Mr. Sayre also stated that the company's proposed increased output would call for the training of from 6,000 to 10,000 retail salesmen and that "several thousand additional dealers would have to be franchised and educated."

★

Women's Jobs The magazine *FACTORY* says that according to a survey made in ten industrial companies employing 300,000 workers, women workers will be the first to be released from jobs in the post-war period in any plant where competition for jobs is keen.

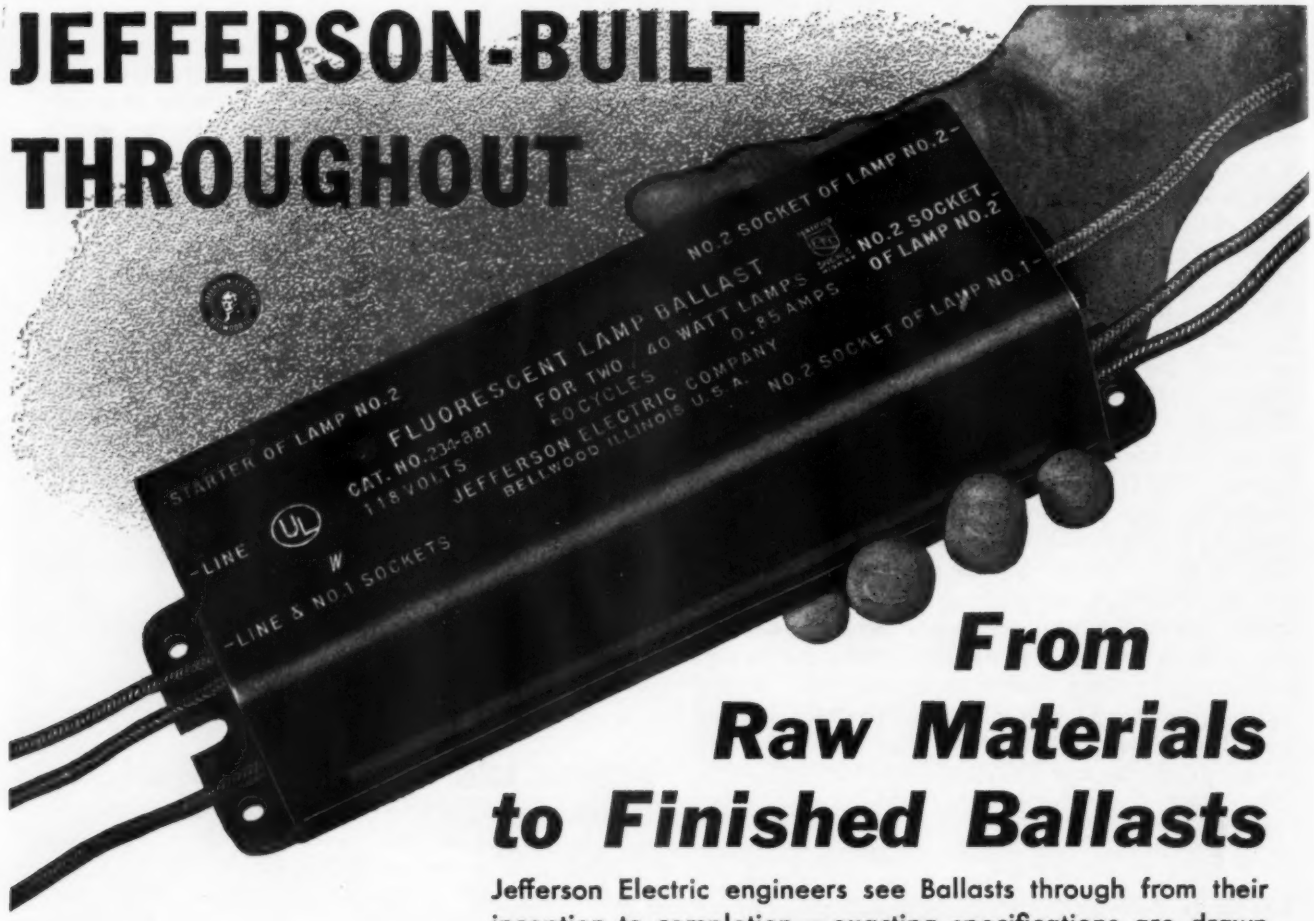
The report continues: "Management won't help them and neither will labor. Any seniority provisions that interfere with their wholesale discharge will crack like an eggshell in the pressure between rival groups of males."

It concludes: "If anyone is going to help women keep their jobs in industry, the government will have to do so."

Well, as long as we have an administration that wants to feed and reform the whole world, and at the expense of the American workers and tax payers, it would be only natural to have a PWA or WPA for American women, only instead of the ordinary kind, that benevolent administration may decide to provide shovels with upholstered handles to give the weaker sex something soft to lean on.

EDITOR

JEFFERSON-BUILT THROUGHOUT



From Raw Materials to Finished Ballasts

Jefferson Electric engineers see Ballasts through from their inception to completion,—exacting specifications are drawn up for all raw materials used, inspection and test of samples follows their receipt—manufacturing processes are under control all along the line to insure uniformity of quality on large production basis.

Every Jefferson Electric Ballast you get has been made complete from raw material to finished product in our own plant. Improvements are really a continuous occurrence—no outside source to cause delays. Any betterment in design, material, or process can be put into effect immediately,—another reason why Jefferson Electric Ballasts are given highest rank by experienced fluorescent lamp manufacturers, engineers and contractors.

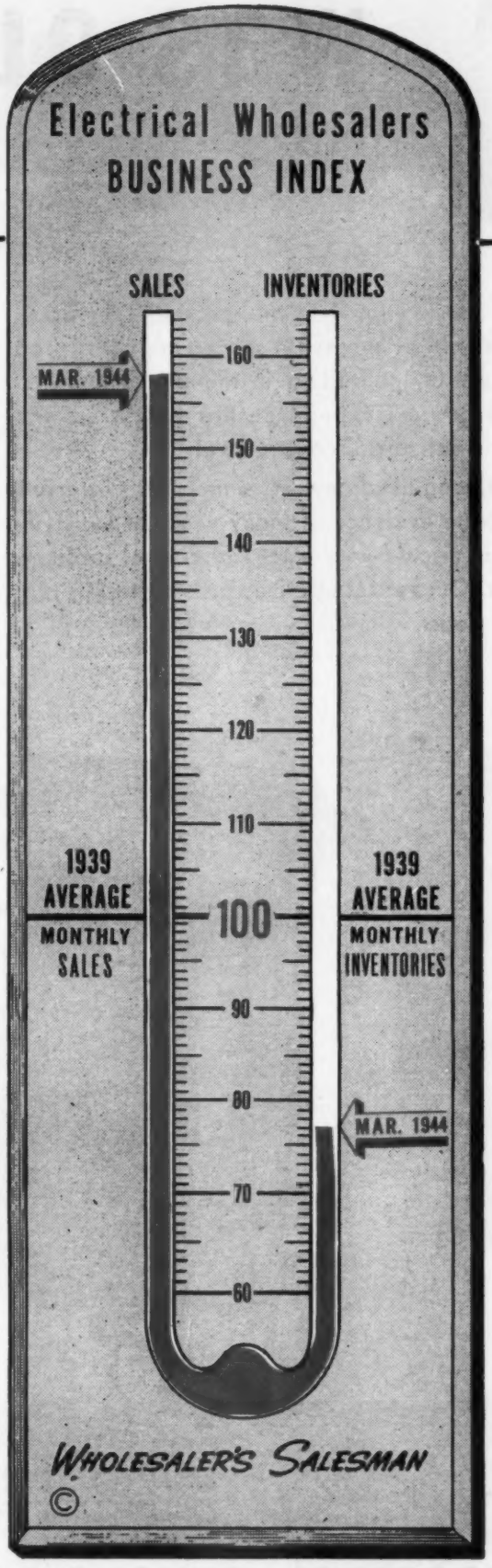
New Bulletin 441-FL contains the latest complete data. Write for a copy . . . JEFFERSON ELECTRIC COMPANY, Bellwood, (Suburb of Chicago) Illinois. *In Canada:* Canadian Jefferson Electric Co. Ltd., 384 Pape Avenue, Toronto, Ont.

BALLASTS with BOTTOM LEADS

• The complete line of Ballasts includes types with the leads extending at the bottom through bushed holes. Their use saves material and time since they may be mounted on narrow wiring channels above the fixture. They are available in the popular capacities: two- and three-lamp, 40 watt; —two- and four-lamp, 100 watt. For complete data refer to pages 3 and 6 of new Bulletin 441-FL.

JEFFERSON ELECTRIC

BALLASTS



SOURCE The figures we use as basis for these monthly comparisons of performance in the electrical wholesaling field are collected and compiled by the Bureau of the Census of the U. S. Department of Commerce.

Business Index
For the Month of March, 1944

SALES With a sudden jump, the average dollar sales volume of electrical wholesalers throughout the country rose in March to 158 percent of the 1939 average monthly sales.

This represented the highest average dollar sales volume reached by electrical wholesalers since December 1942.

Such an upward trend in sales during March was to be expected if 1944 followed the month-to-month pattern, set during '41, '42 and '43, but the relative percentage gain realized this year was far above that of any of those first three "War Years." One reason for the exceptionally high upward swing in sales appears to have been that there were more electrical goods available to supply the demand that had remained partially unsatisfied during November, December, January and February when wholesalers' sales were lower than current conditions would justify.

This gain of 49 points in March represents more than the combined increase in sales, compared to 1939 averages, made during the three big Spring months of 1943 when most of that year's increases were seen.

INVENTORIES For the third successive month, inventories of electrical goods as reported by wholesalers throughout the country showed an increase when compared to the 1939 average inventory level. The March inventory figure of 77 is the highest reported since January 1943.

When it is considered that inventories are reported as larger in the same months that sales are increasing rapidly, it would appear that manufacturers are now able to adjust output and delivery to take better care of current demands of wholesalers. As inventories reached their highest level in a year at the same time that sales were increasing 49 points to their highest level in a year, there appears to be reason for hoping that the point of acute materials shortages has been passed.

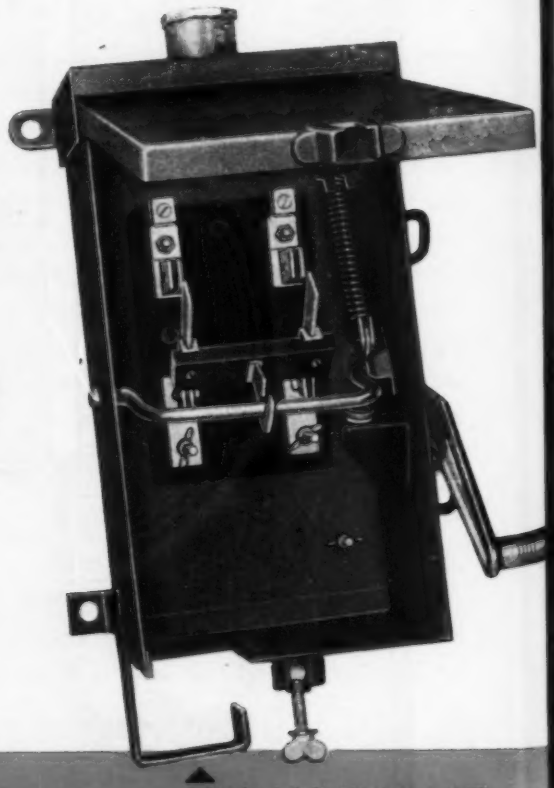
COLLECTIONS Collection percentages in March were 96, compared with 85 in the previous month, and 76 in the same month of 1943. Accounts receivable were up 4 percent compared with February, but were down 20 percent compared with March 1943.

experience was our

Experience, the sum total of success in solving countless problems in electrical control, guided us in the design of these switches and panel boards. Experience has taught us what to avoid as well as what to do, constructively.

In these well built, long lived devices, simple but powerfully efficient, is the concrete evidence of many years of satisfying our customers. Let us discuss your electrical control problems and offer a solution. Our representatives are located in principal cities, coast-to-coast.

600 Volt Relarc Type Knife Blade Switch — 30 to 600 amperes, 575 volts A.C. and 600 volts D.C. Maximum horsepower rated. Equipped with quick make and quick break mechanism and patented Federal Relarc arc snuffers. Available fusible and not fusible — 2, 3 and 4 poles. Equipped with Federal positive pressure type fuse clips.



Raintight Switch with Federal visible knife blade construction. 100 amperes, 2 pole, 250 volt D.C. no-fuse Type C. Equipped with cable strain hook. All Federal switches are available in raintight enclosures.

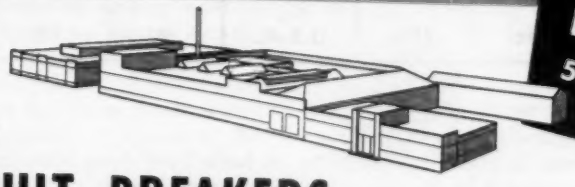
SAFETY SWITCHES • PANELBOARDS • SWITCHBOARDS

designer...

Concealed Arc Switch with rotary sector type contacts. 30 to 200 amperes, 230 volts A.C. and 250 volts D.C. Quick make, quick break, equipped with defeatable cover interlock control. Fusible and not fusible. 2, 3 and 4 poles—3, 4 and 5 wire solid neutral. Equipped with Federal positive pressure type fuse clips.

A smartly designed enclosure completes the sturdy, compact unit and protects Federal Switches.

Federalite NTPS and NTPR Lighting Panelboards equipped with quick make and quick break toggle-type switches, molded Bakelite units with heavy duty switch handles. Available from 4 to 40 circuits.



IRCUIT BREAKERS

Federal

ELECTRIC PRODUCTS COMPANY

50 Paris Street · Newark, N. J.

WHOLESALER'S SALESMAN BUSINESS INDEX

REGIONAL ANALYSIS

MARCH, 1944

ALTHOUGH every one of the nine geographical regions enjoyed a substantial gain in sales during March, there was considerable difference in the extent of the gains in individual regions.

Region 6, the East South Central states showed the greatest gain over the sales of the previous month as well as over the sales of the same month of 1943. This was the second month in succession that these states have been among the leaders in sales gain over the previous month, and the third successive month in which region 6 has shown a sales volume larger than that of the same month of last year.

The gain in that region was in line with the sales increases reported by the southern and central sections of the country. From Delaware down the Atlantic coast along the Gulf coast through Texas and North to Canada, wholesalers' sales were from 14 to 26 percent above the level of February. New England and the Pacific states made out equally well with sales at 116 and 117 percent respectively, of the previous month's volume.

Considerable variation is evident in the regional breakdown of wholesalers' inventories for March.

The Pacific Coast states (9) and the West South Central states (7) were 14 and 7 percent respectively ahead of February, and were the only individual regions to show gains. However, there was no indication of a trend in these two regions as both have been showing no more than the average in inventories during the past few months, making it likely that the sharp gains in March were due to purely local conditions.

Figures in this table apply to the geographic divisions as outlined and numbered in color on map above

SALES March, 1944 Compared in % to		Trading Region (See Map)	INVENTORIES March, 1944 Compared in % to	
February 1944	March 1943		February 1944	March 1943
116	93	1	88	93
104	104	2	82	87
114	119	3	96	104
114	123	4	91	103
116	95	5	93	99
126	123	6	98	102
114	105	7	107	102
108	89	8	99	111
117	86	9	114	104
111	**102**	For **U.S.A.**	**99**	**95**

MARVEL OF SIMPLICITY

Skillful Design Cuts Costs in New, Exclusive...

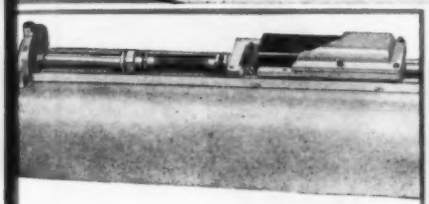
Approved for All Class I, Groups C and D Class II, Groups E, F and G Hazardous Locations

LINE CONNECTION IS EASY

End view with explosion-proof screw covers removed. Connecting block in upper hole simplifies installation. No other connections are made on the job. Lower holes show easily accessible starters, which can be replaced without removing lamps.

RE-LAMP IN A JIFFY

Two 40-watt, 48-inch, T-12 lamps, supported by wire cradles in tightly-sealed explosion-proof Pyrex tubes. Cradles seat lamps easily at far end. Special tool furnished for engaging electrodes in handling lamps.



BALLAST QUICKLY ACCESSIBLE

Mounted in explosion-proof housing at center of unit, under outer dust cover. Easily reached when replacement is necessary. Flexible coupling relieves any possible strain on Pyrex tubes. Highly-efficient, baked white enamel reflectors easily removed for washing.

APPLETON *Explosion-Proof* FLUORESCENT FIXTURE

Simple, low-cost installation and quick, easy maintenance are part of the design of the new Appleton Explosion-Proof Fluorescent Lighting Fixture. They're *built-in!*

Economy of man-hours makes doubly attractive the many advantages of fluorescent lighting in hazardous locations working night and day in war production. Allowing for the fact that all wiring must be tightly enclosed to guard against explosion, every operation in installation and maintenance is as simple as with ordinary fluorescent equipment. Additional maintenance cost is no factor.

Skillful Appleton engineering, so marked in this latest Appleton achievement, is common to all Appleton products—"Unilets," both regular and explosion-proof; lighting fixtures; conduit fittings; outlet and switch boxes. All of the thousands of types are carefully designed to install easily, to stand up on the job, to give maximum low-cost service.

Look carefully at the illustrations above, they'll tell you, *plainly,* why Appleton Explosion-Proof Fluorescent Lighting Fixtures should be in every hazardous location—why it's wise, *on every order,* to specify Appleton equipment — "STANDARD FOR BETTER WIRING!"

Sold Through Wholesalers

APPLETON ELECTRIC COMPANY
1734 WELLINGTON AVE. • CHICAGO 13, ILLINOIS

Branch Offices: NEW YORK, 76 Ninth Ave. • DETROIT, 7310 Woodward Ave. • CLEVELAND, 1836 Euclid Ave. • SAN FRANCISCO, 655 Minna St. • ST LOUIS, 420 Frisco Bldg. • LOS ANGELES, 100 N. Santa Fe Ave. • ATLANTA, 175 Luckie St., N. W. • BIRMINGHAM, 6 N. Twenty-first St. • MINNEAPOLIS, 305 Fifth St., S. • PITTSBURGH, 418 Bessemer Bldg.

Resident Representatives: Baltimore, Boston, Cincinnati, Dallas, Denver, Kansas City, Milwaukee, New Haven, New Orleans, Philadelphia, Seattle

APPLETON

CONDUIT FITTINGS • OUTLETS AND SWITCH BOXES • EXPLOSION-PROOF FITTINGS • REELITES

G-E Distributors Offer CONDUITS—WIRES AND CABLES —WIRING DEVICES *From One Source*

Customers of G-E wiring materials distributors have the advantage of obtaining conduits, wires and cables and wiring devices made according to one high quality standard by one manufacturer. The General Electric line, handled by G-E distributors, is the only complete wiring materials line on the market. All the materials necessary for any wiring job can be found in this line.

G-E wiring materials are carefully made of the finest raw materials obtainable and are designed to be used together. The quality and fine construction of these materials have been developed through years of study and testing by General Electric engineers.

Now, of course, G-E wiring materials are being made—and distributed through G-E distributors—for the war effort. But, as in the past, General Electric is preparing for future requirements. After the war, there will be G-E wiring materials for all civilian wiring needs. G-E distributors, then as now, will provide customers with materials—conduits, wires and cables and wiring devices—all from one source, the General Electric Company. Appliance and Merchandise Department, General Electric Co., Bridgeport, Conn.

GENERAL ELECTRIC

BUY WAR BONDS

Hear the General Electric radio programs: "The G-E All Girl Orchestra" Sunday 10:00 P.M. EWT, NBC. "The World Today" news every weekday 6:45 P.M. EWT, CBS.

THE COST OF *Tomorrow's Peace*

Today peace-loving Americans are united with thirty-three other nations in a common objective of destruction.

Millions of our fine, young men and women find themselves invading foreign lands in order that their own shores may be spared, and their free way of life preserved.

Their sacrifices will be great. Their job will be well done.

But what of the job they will expect of us when they have finished theirs . . . the job of turning their hard-won victory into a lasting pattern of peace?

Can we come up to their great expectation? We must realize that this is the last opportunity of our generation. We must do a better job of it than we did in the Twenties and the Thirties.

We have our backs to the wall, and the scars of World War I and a thirteen-year depression still are upon us. The final test of our way of life is at hand!

As we look over our shoulder into the immediate past, we see little to encourage us. But we also see much to make us pause. We see a tremendous fighting machine, created in a matter of months by the miraculous organization of our resources.

We, the largest of the peace-loving nations, have overnight become masters at the business of waging war. Today, as a result of the coordination of industry, labor, and government, we are producing ***for war alone*** as much as our total normal production for peace.

* * *

We have amply demonstrated our ability to harness the vast productive capacity we possess. Why cannot these resources, which we have organized so efficiently for the destruction of life and property, be directed toward the destruction of the causes of war?

May not the patriotic and emotional strength and the unity of action which have been stimulated for the purpose of winning the war be directed, at least equally well, toward the attainment of world peace and international harmony?

If they are not so directed, what lies ahead but another war? And how can America, in a world that is so rapidly shrinking in size, avoid involvement in ***any*** of tomorrow's conflicts?

International peace is an ambitious dream and its price is high, but the price of war is even higher. Our world cannot long survive the periodic waste of its human and material resources.

Our country can be the most potent single force in bringing about the international understanding that leads to peace, in developing the unity that will make the most of the ample resources nature has provided everywhere.

* * *

There is no unity in selfishness. There can be no unity if any one of the great powers fails to do its part in determining and eliminating from the world the basic causes of aggression.

These basic causes stem from greed and the suppression of opportunity for individual progress; for self-preservation is the first law of nature.

Mussolini's dramatic march on Rome in 1922 was made possible by disillusioned veterans of World War I who could find no jobs and whose future held no promise. Some of Hitler's most

determined followers came from the same ranks.

Men denied the opportunity to make a living, for themselves and for their children, are easy prey to false doctrines and dangerous "isms."

In any realistic appraisal of our domestic problems—economic, labor, racial—it is clear that we can solve them, not by waiting until we reach some utopian accord, but by making a series of compromises. We do this because we know how discord can impair the very roots of private enterprise, self-government, and self-discipline—the essentials of a dynamic democracy.

Similarly, peaceful reconstruction of our world economy depends on the ability of nations to reconcile their differences in a series of working agreements.

If we in the United States want lasting peace and if we want to preserve our democratic way of life, we must take over our full share of the task of initiating these compromise measures. Acknowledging our inescapable responsibility as the greatest economic and military power in the world, we must attempt to insure the free flow of world trade, and develop—with profit for both parties—backward areas abroad as well as at home. And we must do this by making all nations share the responsibility, not by allowing ourselves to be manoeuvered into being an international Santa Claus.

With our allies, we will have to see to it that the devastated portions of the world rehabilitate themselves as quickly as possible; that practicable and realistic trade and economic relations between nations are developed; and that the energies and productive capacities of these nations are set free to function in a climate that is favorable to the growth of free enterprise and individual initiative. As the most powerful economic force on earth, we have the most to gain and the most to lose at the peace table; and we must never forget that with our power comes responsibility.

We cannot hope to solve all of the problems of all nations—nor even all of our own—but our way can become the way for more of the world's humanity. Our strength can become the guiding spirit of the smaller nations.

* * *

In the development of a sound American foreign policy, let us take care not to attempt to control the destinies of other nations. Let us remember that we must set the example of self-determination of independent, free peoples.

Freedom is essential to international peace; and free competition—whether it be between individuals, between businesses, or between nations—is the mainspring, the synchronizer, and the preserver of freedom. For competition always is synonymous with private enterprise.

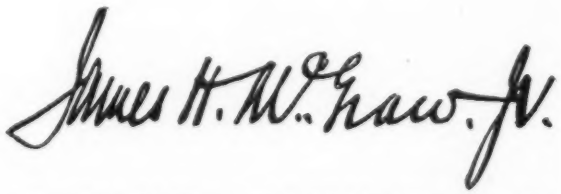
We are not a covetous nation. We have no territorial ambitions. Our international commercial aspirations are dominated by the conviction that we have a great stake in world unity and world prosperity. We know that we can no longer live apart from other nations and that we cannot ignore the fundamental elements which affect the well-being of other countries.

Our foreign policy must encompass a world of trade, and help develop it.

We dare not blunder in the execution of that foreign policy if the American way of life is to survive. A democracy resolved upon isolation is doomed in the world of tomorrow.

Let us resolve that out of this devastating catastrophe we shall emerge with fuller understanding and greater determination to build the kind of world which can materialize only if this country has the vision and the will to see it through.

We still are free to decide our own fate—still free to shape our own future. We still are free to preserve the liberty and happiness that has made our country the hope of the world.



President, McGraw-Hill Publishing Company, Inc.

Great Days Ahead for Wholesalers And Salesmen Who Know How to Sell

Herewith we present the most significant sections of the Report of the Post-War Planning Committee, presented by its chairman, Mr. Metz, at NEWA's 36th Annual Convention, Chicago, April 19-22, 1944.

The report is evidence of the fact, that Mr. Metz and his committee attacked their assignment with exceptional seriousness and determination. As the result of their earnest effort, the electrical wholesaling industry is today in possession of a guide that should prove highly valuable and useful in the period that lies ahead.

Special mention is deserved of the separate report on Potential Appliance Markets After the War, as prepared by Willard Hall, vice president, Times Appliance Co., Inc., New York, in behalf of the Appliance Sub-Committee of Mr. Metz's Post-War Planning Committee. This report not merely appraises various factors affecting the appliance market but contains a unique formula for estimating potential sales in a given territory.

We compliment Mr. Metz and his committee and the Appliance Sub-Committee on having made most timely and very valuable contributions. We thank them and NEWA's officers and staff for their cooperation in making it possible for WHOLESALER'S SALESMAN to print in this issue these excerpts from Mr. Metz's report and Mr. Hall's "Potential Appliance Markets" report.

The EDITOR

By

Herbert Metz

General Lamp and
Lighting Sales Manager
Graybar Electric Company, Inc.
Chairman, Post-War Planning Committee
National Electrical Wholesalers Assn.

THE PostWar Planning Committee of your association has done two things: First, we have sent out to you what we thought should be a basic plan which you wholesalers might follow in outlining your own postwar plans. Then we tried something else. We conducted what we have called Forums. We have had five of them. To those Forums we invited men who are experts in their field, because we felt it would be very interesting to you and very helpful to all of us if we could get an outside viewpoint on what is going to happen Postwar. Since I am sure that you'll be interested in knowing some of the men who addressed these Forums, a list of their names is presented on page 121 of this issue.

Through those forums we have gained two good results. First, we learned many interesting things, most of which were already sent on to you in bulletin form. However, because these Forums were all held on an informal basis, and "off the record," not everything could be passed along to you.

The second thing resulting from the Forums is much very valuable publicity for the N.E.W.A. I think it has been a quite worth-while by-product.

Tremendous Postwar Market

Out of these Forums and out of this work that we have done we have uncovered certain facts. I am here as a reporter to tell you what we have learned. As the economists say there are certain "areas of agreement" about postwar. One of these is that there is going to be a tremendous demand for merchandise, particularly for the things that we electrical wholesalers sell.

Just as soon as reconversion is taken care of there will be a tremendous postwar market for electrical merchandise. This will bring with it an era of prosperity whose length will depend very largely upon how both business and government plan and cooperate.

There has been a considerable number of surveys made, all of which point to a tremendous pent-up demand for electrical merchandise. Never before have we had a time when no electrical device has been manufactured for two to four years. This demand has been built up by two factors: — First, obsolescence and depreciation;—Second, natural demand. It is not necessary to go into detail. Suffice it to say that the demand is very great. Significantly interesting that high-up in their list of things wanted by the American Public stand electrical devices.

In this connection, it is also interesting to note that Mr. Green, at one of the Forums, said that out of the first five things that people are actually saving to buy Postwar, the first four are electrical, namely:

1. Washers, 2. Radio & Television, 3. Refrigerators, 4. Vacuum Cleaners, and Autos running fifth.

Mr. Livingston of the Department of Commerce, in "Markets After The War" has outlined in detail just how vast this market will be.

I remember when I first came with the Western Electric Company I had a job as office boy and one of my jobs was to add columns of figures. They gave me an adding machine but I never trusted it. Every time I added on the machine I also added by hand to make sure it was right.

We have done quite the same thing

in our committee. We have all the surveys that have been made, and they all point to the fact that there is a great market for the things we sell. We didn't quite trust the surveys. We have set up our own department to check these figures and Willard Hall, responsible for that work, has done an outstanding job, on which he himself will report, but meanwhile I want to tell you now that the various surveys are correct, and that vast market really exists.

They'll Have the Money

The next "area of agreement" is in connection with—where is the money going to come from to buy all these things? It is all very well to have a tremendous demand for washing machines and vacuum cleaners and what have you, but how about the purchasing power? I'd like to read to you some data from a recent report issued by the S.E.C.:

The American Public saved 37 billion dollars in 1943, which represents about 30 percent of their disposable income.

These savings were only 4 billion 600 million less than the total national income in 1933, just ten years earlier. They also are larger than individual and corporate accumulations during the two-year period April 1917–June 1919, which includes the year of World War I in which we participated.

As a matter of fact, gross savings during the four years, 1940, 1941, 1942, and 1943, reached the staggering total of 125 billion 400 million.

In this figure of 37 billion saved by the public in 1943, war bonds accounted for 11 billion 100 million. Currency on hand and bank deposits, 15 billion 800 million. Other interesting figures are 2 billion 700 million in other Federal Government Bonds, 3 billion 200 million in Government insurance, 3 billion 100 million in mostly life insurance, and 640 million in savings and loan associations. They also paid off 800 million dollars of consumer indebtedness other than mortgages, and 100 million in mortgage debt.

In this connection, the report says American individuals have just about wiped out the installment debt with which they entered the war, and it is interesting to note in this connection that the Department of Commerce reports that prior to 1941, Americans had never saved as much as 10 billion dollars in any one year. Average for previous decade was less than 5 billion.

If the war lasts through 1944, and we pray to God it doesn't, and the Public maintains its present rate of saving, and there is no reason why it shouldn't, the aggregate savings of the people in this Country as of January 1, 1945, may reach the unbelievable total of approximately 150 billion dollars.

It is interesting to note that these figures of the S.E.C. closely approximate those which have been published by the U. S. Department of Commerce.

"Rainy Day" Savings Untouched

These savings, of course, if spent would constitute a terrific inflationary threat. However, they need not be used in their entirety in order that the Public may buy the things it wants and needs.

In this connection, S Morris Livingston of the Department of Commerce has said "these funds constitute a reserve out of which people will be able to buy things that have not been available during the war, or maintain their current expenditures in spite of temporary unemployment. More important, however, is the fact that they will enable the consumer to spend more of his current income after the war. He will already have accumulated his reserves against the proverbial rainy day."

In other words, as we all know, confidence is the basis of prosperity. If the Public Postwar can be assured of a job and knows that it has ample reserves for the rainy day, it will spend its income for the things it wants, and it is the spending of income, the turnover of money and the production of merchandise that makes for prosperity.

The magazine TIME in commenting on the rate of savings of the American Public makes this very significant comment. "It (the savings and reduction in indebtedness) means that many an American family free of debt will have more cash out of income to spend for postwar appliances and improvements to property."

Herbert Metz reports to NEWA as Chairman on Post-War Planning.

The magazine CONSUMER CREDIT published by the Consumer Banking Institute of Washington, says this—"just as business firms use their credit facilities to supply working funds without disturbing their capital, individuals can use consumer credit to finance purchases out of income. In this way, their capital can be kept intact for many rainy days which will never come because of it. . . . This is a bright future. It is bright for the consumer because it means he can buy and use more of the things he wants. It is bright for the businessmen because it means greater markets and more assurance of profits. Its realization is worth planning for."

On this interesting subject of whether or not the public will cash its war bonds postwar, the National Planning Association conducted a nationwide survey in which they asked the question—"As you see things now, do you expect to spend a good part of this money right after the war for things you need or do you expect to save the money for a while." 73 percent said they were going to save their money, and only 11 percent said they were going to cash in their bonds. This is indicative of the fact that this money will

not represent an inflationary threat.

In passing, it may be interesting to comment on an observation very frequently heard that the public today is cashing its war bonds almost as fast as it is buying them. The following appeared in the March 15th issue of the Cleveland Trust Bulletin—"In the full year 1943 bond redemptions were 6.3 percent as large as the amount outstanding at the end of 1943. . . . This is not a high percent of redemptions, and it may even be rightly considered to be a low one. Withdrawals from savings accounts in banks are likely to run at annual rates of about 20 percent of the average amounts of the deposits. Among life insurance companies the dollar amounts of annual policy surrenders and controllable lapses is likely to amount to from four to six percent of the insurance in force during the year. Clearly the record of the buyers of war savings bonds has so far been a distinctly good one."

There is a mass of figures on this subject of savings and the funds that will be available for the purchase of the needs the public will want postwar. It would be foolish to attempt to summarize all this data. The figures I have given you are simply meant to high-light the fact that both money and credit will be available in liberal form to be able to financially satisfy the public demands for merchandise. For more details refer to S. Morris Livingston's article "Wartime Savings and Post-War Markets," Survey of Current Business, September, 1943.

Mass Retailing Appraised

The next point which is of interest is the movement called "mass retailing." We hear much about the tire companies going into stores across the country where they are going to sell everything. You hear a lot about the filling station of the future, where you drive in one end with an empty tank and a full pocketbook and come out the other with an empty pocketbook, a filled tank and the car full of gadgets. That, they say, is going to be a threat to the independent electrical retailer and the distributor. There are several things to be considered.

In his speech before this convention yesterday Mr. Boulware said that the appliance business divides itself into two classifications: one the staple and the other the promotional lines. As far as the promotional appliances are concerned, you have nothing to fear from the mass retailer. He sells only the things that the public knows and wants. New items we wholesalers will have to promote and the independent dealers will continue to sell. Insofar as the staples are concerned, there is a problem. However there is one big factor in favor of the independent dealer, which should make us very optimistic about our future and the independent dealer's future. That factor is a little thing called "service." It is the one attribute that the independent dealer has and the mass retailer does not.

In my humble opinion, the electrical dealer who delivers service as well as merchandise has no need to fear this mass retailing. You will be interested to know that sales of grocery chains reached their peak in 1942 and have declined since then. Sales of groceries through independent stores reached an all-time peak in 1943 and are still growing. In 1929, the sale of groceries through chain stores was something less than 3 billion; for independent stores something more than 4 billion. In 1943, the sales through chain stores were a little over 4 billion while the sales through independent stores reached about 9 billion. This is the pattern that has been generally followed by all independent stores as compared to mass merchandising.

Coming out on the train I picked up the current issue of ADVERTISING AGE and I'd like to read an editorial entitled "Distribution is a Service": "The improved position of the independent grocer during the war period has emphasized the fact that distribution is something more than a mechanical operation, and that it is a personal service which must be fitted to the needs of those for whom it is provided. The ability of the independent store to hold and increase its business under conditions calling for exceptional service to the consumer demonstrates that the retailers of the county have courage, intelligence and capacity for work far beyond what has been credited to them."

Because retailing is one of the best examples of free enterprise at work, it is heartening to know that the hundreds of thousands of independent stores have more than held their own under the difficult conditions of wartime. Chain stores will continue to render a great service to many millions of consumers now and in the future, but it is a healthy situation to have vigorous competition among all types of retail distributors. Many manufacturers who had perhaps over-emphasized chain store merchandising in their own distribution plans, no doubt will make their post-

Making up NEWA's 3-Men Post-War Team

Other members of NEWA's hard-hitting Post-War Planning Committee were: E. B. Ingraham, president, Times Appliance Co., (left) and E. B. Latham, president, E. B. Latham & Co., (right) who share the honor of membership on a 3-men team that has made an outstanding contribution to the industry.

war marketing plans with this situation very much in mind.

The Home-Building Market

All kinds of figures have been published to indicate the size of the market for new homes. It is fair to say that in talking about this area of agreement it seems to be agreed that there will be a market for homes which will be only partially satisfied if a million homes a year are built for ten years postwar. This makes it apparent that this home building period is going to represent a tremendous market for electrical supplies and electrical appliances.

The question of pre-fabricated homes is a very live one in so far as this development will affect the postwar building program and the electrical wholesalers' participation in it. While there will undoubtedly be some prefabricated homes built and sold, and while undoubtedly partial prefabrication will play an increasingly important part in home construction, I think it fair to say that the prefabricated home will not present a serious problem to either us or home builders in the immediate postwar period.

In this connection, Mr. Hood in talking to us at one of our forums said—"it is probable that the so-called factory-built homes will be a local rather than a regional or national development. . . . There are many reasons why there will be no 'Detroit' of housing. To mention two important ones: (1) the difference in cost between local fabrication and regional or national fabrication is negligible, and (2) the resistance of local building industry factors to the shipment across city boundary lines of houses completely manufactured elsewhere will be extremely difficult —if not impossible—to overcome."

Electronics—Your New Opportunity

One of the most widely publicized subjects is that having to do with electronics and the almost miracle part that it will play in the future of American business and American living. We all agree that the development of electronics postwar, as a result of its development during the war, will have a real effect on our business and our lives, and we in the electrical business particularly should be alive and alert to its possibilities and to its many ramifications as far as we as electrical wholesalers are concerned.

However, we must not be misled by all the publicity electronics is receiving into believing that it is going to change our lives and our businesses over night. In this connection, I quote from a recent speech made by Dr. Baker before the Economic Club in Detroit.

"It has been said that the receipe for the intense public interest currently generated in the subject of electronics is two parts promotion and one part misinformation, garnished liberally with blue sky. . . . Electronics is a serious science. Already it is an important business. It is going to affect the lives and fortunes of every one of us in the years ahead. . . . Electronics is reaching into every branch of industry. . . . But electronics cannot do everything and in many instances electronic methods are not economical or practical. . . . Electronics is not going to revolutionize the methods of making paper or steel or bread, but it is going to help existing methods, increase production, improve quality, and, I hope, lower the cost. . . . Electronics is not a cure-all. It cannot do everything. But it is the perfect answer to the young man who thinks everything important has been done and the world is dull and unpromising."

In other words, electronics offers great possibilities but do not look for miracles from it. As a matter of fact, there is nothing startlingly new about electronics. We have had electronics ever since we have had radio.

There is one phase of electronics development that will undoubtedly have great growth and will be of particular interest to every electrical wholesaler who is now or who will be engaged in the distribution of radio postwar; i.e., television.

Television

Mr. Joyce of RCA, who talked to us, echoes the opinion of many thoughtful people across the county; namely, that television will represent a tremendous market postwar and that the electrical wholesalers will be wise if they get ready for it now, so that they will be prepared for it later.

Again quoting Dr. Baker—"Certainly television will come after the war, but how soon cannot be definitely stated. The technical progress due to the war will have a more direct effect on television than on radio broadcasting. This is equally true as applied to some portion of the economics of television equipment. For example, the productive capacity available for cathode ray or picture tubes will be vastly greater than before the war."

Gentlemen, keep your eye on television for everything seems to point to it representing a vast market and a great opportunity postwar.

Tremendous Farm Market

The farm market postwar is going to be tremendous and we have asked the subcommittee to study this question. As you know there are approximately 2,500,000 farms wired and 4,000,000 unwired. The two million represent a large market for the things we sell in the appliance field. The four million represent a great market for sockets and all the things that go into wiring, as well as appliances.

With the farm market and its opportunities come problems. Our old friend Frank Watts talked about it at one of our Forums and you have a copy of his remarks. He has just prepared an instructive paper on this subject under the title "Distribution the Bottleneck to Farm Electrification." Copies will be sent to you and we recommend it to your careful reading.

Publicity

Because of my background in advertising and publicity, I have a keen appreciation of the importance of publicity to the electrical wholesalers as well as their association. I have been keenly interested in the job that Mr. Pyle has done in developing a publicity program for the Association.

We believe that it is important to continue and amplify this publicity program now, so that the story of the economic function that we electrical wholesalers perform can be

told to all segments of industry, all to the end that when the Postwar period arrives there will be a broader and better understanding of our function, and its importance both to the manufacturer and consumer alike.

We do not believe for a minute that publicity can prevent any change in American distribution methods if those methods are unsound. However, we do believe that if those methods are sound then proper publicity can prevent a great deal of unfavorable criticism and comment. If we do a good publicity job it will be extremely helpful to our cause and to our businesses.

The Distributor's Postwar Position

Finally, what is going to be the position of the distributor postwar?

The function of distribution has long been discussed. It seems to me that today more is being written and more is being said about the distribution functions than ever before. We must face the fact that the economic finger is on the distributor. No postwar discussion is complete unless somebody says: "the cost of distribution must be cut."

It is an interesting fact that the cost of distribution should really cover the cost of all functions from the time the merchandise leaves the manufacturer's machines until it is delivered into the hands of the customer. Actually and for most purposes of discussion "distribution" means us. Wholesaling and distribution whether it be right or wrong in the minds of most people are synonymous.

Now the plain fact of the matter is that we electrical wholesalers will continue in business regardless of what is said for us or against us, as long as we take merchandise from the man who makes to the man who uses it cheaper, more efficiently and better than the manufacturer can do it himself or through any other channel.

Our main job right now is to get our house in order and lay plans, so that in postwar period we can be definitely sure that we will be in that position.

Your Postwar Planning Committee has several recommendations.

1. We want to be sure that our operation is streamlined. We must have no waste motion and no unnecessary costs.

Let me refer you to what Walter Crowder, who is Chief of the Distribution Division of the Department of Commerce and a real friend of wholesaling, has to say on this subject. "If it is true that the wholesaler's position depends basically upon performing the distributive functions more efficiently than alternative channels, then maintenance of the wholesaler's present favorable status would seem to call for even greater efficiency in the future." . . . Perhaps the most important thing wholesalers can do is to re-examine their internal operating procedures with a view to increasing efficiency. Numerous studies of the Department of Commerce have shown that most wholesalers can take several percentage points off their operating cost ratios without decreased service to their customers.. . . . The Department of Commerce is interested in assisting distributors in putting their operations on a sound, economical and profitable basis. The Department believes unreservedly in the free enterprise system, and regards the maintenance of independent retailers and wholesalers as essential to that system. . . . A new streamlined type of warehouse for wholesale distributors has been recently devised. A model of this warehouse has been constructed which will be of interest to all wholesalers."

Mr. Crowder and his Department can be and are more than willing to be of assistance to any wholesaler who wants to avail himself of their service.

2. The wholesaler has no more important problem than that of manpower. It is going to be vitally necessary that you pick the proper people for the proper jobs, and having picked them see that they are trained, so that they will know how to function most efficiently and most effectively.

Now is the time to lay your plans and devise programs under which you can scientifically select your employees and develop a sales and employee training program that will make efficient and effective employees of them after they have been hired.

3. The wholesaler must build up a hard-hitting, efficient sales force. Most economists who have studied this postwar problem are of the opinion that after the first flush of prosperity has passed whether or not it will be continued will depend very largely on the kind of a selling job that is done by American business. We will have the capacity to produce. The capacity to consume will depend very largely on how well the salesmen of America do their job.

For many years selling has become more or less of a lost art. The salesman has not ranked high in the minds of either business or the public. This must be changed.

In a report of the Postwar Committee of the National Association of Manufacturers, this significant statement appears—"Salesmanship must bear the brunt of the postwar challenge to the American system of free competitive enterprise. The training and conditioning of the sales forces must not be deferred until the risk is again incurred of "too little and too late." Business must accept the responsibility NOW for aggressive planning and studied preparations."

In the March issue of Domestic Commerce, S. Morris Livingston says—"Even if we take an optimistic view it must not be assumed that the demand for goods after the war will be so great that selling will present no problem. . . . A level of production which approaches the capacity of available manpower after the war means a substantial increase over pre-war living standards. To reach this higher standard of living, people must be persuaded to buy more things than they ever had before."

We, therefore, say to you that you have no more important problem than the development and training of an effective sales force. To do this you must hire and develop good men in order to attract better men to selling. Then salesmanship as a profession must be brought into proper focus and its importance emphasized. Undoubtedly the salesman is going to be, as I always felt he has been, the most important man in business. To treat him otherwise is unwise.

Some Secret Weapons for the Li

Added to the Footcandle Meter, which is MUST equipment for every good salesman of lighting equipment, these "secret weapons" should help to clinch many extra orders

By J. P. Ditchman and W. D. Riddle*

THE work that has been done by lighting specialists since war began, the peaks of production that they have helped war workers to attain, have been accomplished with the aid of few, if any, secret weapons. Many of these men have worked longer and harder than might have been necessary if there had been a secret weapon designed to help them analyze industrial lighting needs, help to determine individual treatments that could solve seeing problems.

Shown here for the first time is a weapon for lighting specialists, a demonstration device that can help to plan the war production lighting that still remains to be done, as well as indicate a new approach to post-war problems in plants, stores and offices. The gibbet-like gadget in our principal illustration combines most of the major lighting problems that most of us ever will encounter.

As we sit and stare at it, the picture is a meaningless conglomeration of lines and forms. Yet when we look up from the study of the photograph and remember a day in any war plant or recall the relationship between work and working surfaces in an office or store, we find that each represents a series of similar problems.

In our mind's eye, let's take another look at the first war plant we ever helped to light! Cranes, columns and conveyors; machines, men and piles of materials; walls, windows and walk-ways complicated our survey of the scene. Each of these, by creating a jumble of interfering lines and forms, contributed to the seeing problems we hoped to solve. Each, in our final analysis, had to be treated as an individual problem before we could put needed light where workers could use it.

Basically, lighting is the science of defining line, form and texture. Separately, they almost define themselves, in combination, they are harder to see clearly. Our gadget becomes a useful weapon for lighting specialists only when we take it apart, divide it into the four major forms that comprise all lighting problems. In this one demonstration device are all the lines and forms represented in plant or store or office. When we see them as an assembly, they are meaningless, confusing. When we, like Caesar, divide them, we find them easier to conquer.

What are the four divisions of a lighting problem? They are the four forms and nature, the four major structural shapes employed by all designers and builders. They are the sphere, the plane, the cylinder and the cone. After we have arrived at an understanding of the basic forms, we see them wherever we look.

The ability to recognize primary forms, to see each emerge as a definite entity from the confusion of its background, is the first long step toward the completion of a good lighting installation. Then our plan for lighting instinctively becomes far simpler than it has ever been. Obviously, as each part of a lighting job yields to individual treatment, it contributes to the completion of the whole.

Our second picture aptly illustrates this fundamental truth. As the four forms gain clarity by separation, we begin to see them as they are. Then, to get the quantity and quality of illumination that can make individual forms easy to see, we only need to review and apply proven lighting principles.

One of the most important lessons that we have learned from war is the relationship between enough light for easy seeing and all types of productive work. With minor variations in fixturing, lighting for production and inspection is markedly similar to the lighting required for the display and sale of merchandise.

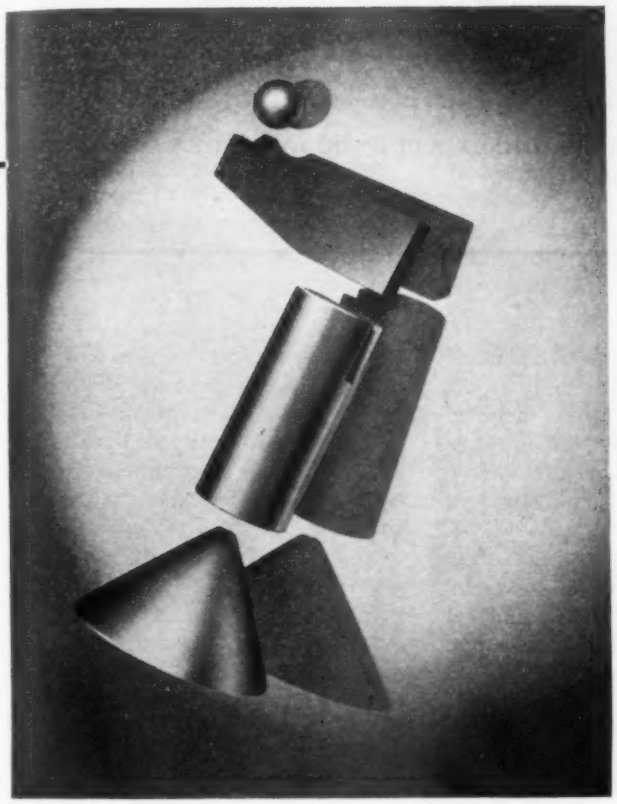
The levels of illumination required for the identification of materials in storage varies little from the lighting required for the production of figures in an office. Wherever forms are similar, the problem of lighting them is comparable.

To make this weapon his own, all a lighting specialist needs to do is gather its four principal parts. We need tell no one, here, how the characteristics of the sphere differ from those of the plane, cylinder or cone. His own eyes can tell him eveything he wants to know.

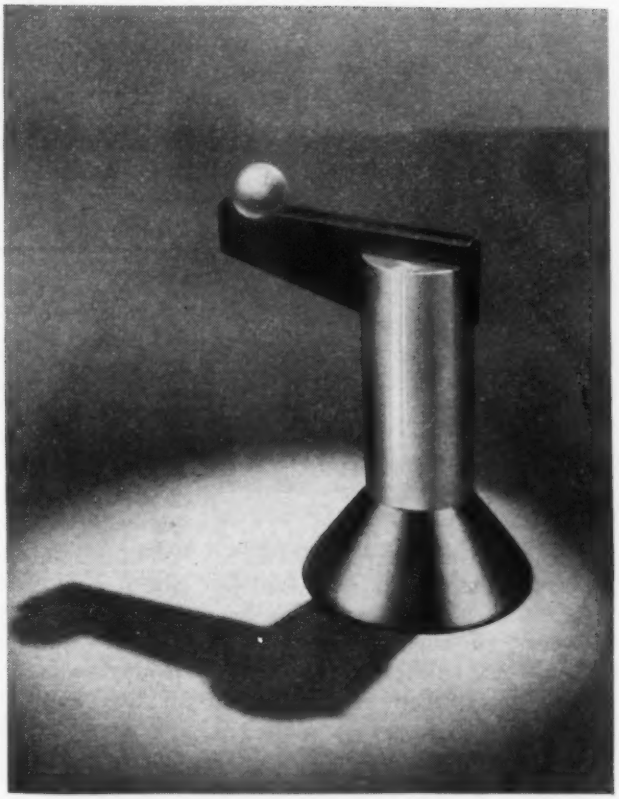
If he will pick up a completely specular sphere, such as a bright-surfaced ball-bearing or even so familiar an object as a Christmas tree ornament, and look at it under a variety of light sources, immediately he will see how reflected

*The General Electric Co., Nela Park Cleveland, Ohio

Lighting Specialist



Components of the "weapon" are the most acute lighting puzzlers—ball, plane, cylinder and cone, each a challenge to the expert.



In this weird-looking "secret weapon" are represented the major lighting problems met in planning industrial lighting applications.

images cause visibility to vary.

Any sphere will reflect an area greater than the eye has power to encompass, show the specialist existing light sources, ceilings, walls, windows and all the objects in a room. Within the range of his vision, reflected images from bright surfaced objects are sharp and clear. Gradations in surface brightness bring diffusion without ever completely eliminating reflection.

When the specialist has seen these things, he only needs to remember what he has seen in order to begin the solution of lighting problems. Simple experiments with planes and cylinders, under actual working conditions, will help him determine what workers need to see.

A pocket-edition cone, small enough to be carried from light source to light source in plant or office or store, can contribute to the evolution of many of the answers to difficult lighting questions.

The plane, represented by such integral items as walls, ceilings and supporting columns and moving parts like conveyors and cranes absorb some light and reflect some. All of these things need definition of outside or border lines.

Cylinders, as the lighting specialist will see when he exposes a metal shaft or sleeve-bearing to light, reflect a series of parallel lines, brightest at the point of exposure to a point-light source. The cone presents a series of reflected light-triangles, narrow and more numerous under point light sources than under a large-area low-brightness source such as fluorescent.

After he has watched the sphere, plane, cylinder and cone react to a variety of light sources and studied the work to be done, the lighting specialist needs to remember only one other thing. For the greatest seeing ease the brightness of the surroundings and the brightness of the object to be viewed, should be directly comparable.

With the components of this secret weapon in his portfolio, or in his pocket, the lighting specialist can establish the need for and demonstrate the effectiveness of better light for better sight.

Hard-Hitting Salesmen Get Orders Where Order-Takers "Get the Gate"

When production of civilian goods is freed—don't try to do today's job with yesterday's methods and expect to be in business tomorrow

By Henry J. Baitinger

President Baitinger Electric Co., Inc., New York

THERE is an old adage which many of you have heard:

"If you make a better mousetrap, though you build your house in the woods, the world will beat a path to your door."

That adage may have applied some years back and probably still does for some services of a local character. However, our current tempo of living and doing business has outmoded this adage. In many cases you will note along the highways messages spread out in single words 50 or 100 ft. apart over a distance of half a mile or more so that we may read as we travel. In a like manner we too must change our tempo and sales campaigns.

Truthfulness regarding products, their possible uses and accomplishments must be presented. Also we must carry the message to the prospective purchasers. It is the old story—tell it to the people. To circumscribe operations tell it to the right people. By this is meant carry your message to the possible prospect not to one who is not a prospect. Do not waste motions and unnecessary expenditures.

This Nation has overcome those critical conditions which existed some 2½ years ago when shortages were reflected in empty warehouses, insufficient vessels, insufficient military and naval forces to meet the demands to which we were to be put.

After a period of operating 24 hours a day, 7 days a week, our warehouses have become filled and it will not be long before our naval and aerial forces will be large enough to do the job which we have planned. So far as supplies, ammunition, etc. are concerned, the needs have already been met and our business organizations are therefore looking forward to civilian supplies and requirements.

Manufacturers have not been asleep in this period insofar as noting improvements and advanced development while supplying government requirements. They will make use of that knowledge to make their civilian items. Therefore the manufacturers are prepared to proceed at full speed with modern equipment when the green signal shall be given.

Our bankers and financiers have ample capital to take care of financing operations. Our civilian population is anxious to procure the many commodities for which they have expressed a desire over the past several years. With a greatly enlarged income and inability to spend same due to lack of materials a large sum has been put aside for that period when civilian products will again be available.

There remains one connecting link to keep the mechandise moving from the manufacturer to consumer and that link is personal salesmanship and advertising.

In the past several months more postwar plans have been prepared than will ever be put into use, but those plans have to do with manufacturing processes, style and design and methods of distribution. Practically nothing has been done in the way of promoting the proper sales forces.

In order for goods to move from the manufacturer to consumer the desire must be created. The merchandise must have sales appeal, either through utility of the product as in the case of commercial ware, eye-appeal or style and quality as in the case of clothes—so on down through the various products, each one must have its salient selling points.

However, to present the sales story properly is the problem. You cannot do today's job with yesterday's methods and be in business tomorrow.

In the times ahead we shall need more showmanship in business. The showmanship of the stage or circus portrays glamour — but practical showmanship applies to products supplied to cover our wishes for accomplishment, comfort or whatever service we are seeking.

The salesman selling to a commercial house would portray a saving in time, increase of production, or ease of operation. A clothing salesman would portray the wearing qualities, style and design of his product. So on down the line, whether a funeral director, banker or any other class of business, it is necessary to portray in a showmanship manner the services which can be rendered and the advantages to be gained from the product to be purchased.

In dealing with our customers honesty and courtesy which cost so little yet mean so much are used all too sparingly. Common sense with a good followup service, a friendly policy, a program of maintaining promises, friendly sales people and

reputable merchandise are the foundation from which to build a successful business organization. As Elmer Wheeler states it is the sizzle and not the cow that sells the steak. See that your sales story has a sizzle backed up by the sizzle of performance of your organization.

To Sales Management I would like to say that a successful sales campaign requires incentive and competition. Just as contests and competition develop new records whether in basketball, running or baseball, or any other sports or undertaking so does business also require incentive and competition.

Henry J. Baitinger

You as an individual play golf, cards, pool or participate in games or sports and as a rule have an incentive. In golf you make a side-bet or play cards for a sum per game or per point. You make these bets to create interest, arouse competition and have an incentive to improve your game.

This competitive spirit is developed in us from youth. You will note that the youngest of children on the street enter into competitive sports, whether it be at marbles, tops or any other game. In school the teacher instills competition by selecting a section of the class to compete against another section of the class.

Today we have radio quizzes—"The $64.00 Question", "Can You Top This", and other programs to retain and focus attention and to develop interest in the program. In a like manner sales managements must setup competition within their own organization among their sales forces to bring out the best in salesmanship in their sales forces.

Most sales forces during the past two years have degraded from the classification of salesmen to "order takers." Many salesmen have been able to realize sizeable sales volume and often handsome commissions with little or no effort.

As an illustration of this condition, I desire to call attention to one case within our own organization. We have had a salesman assigned to a certain Government Bureau to solicit their business.

A manufacturer of a certain product called on us one day and advised that this Government Bureau was in the market for a quantity of material valued at approximately $100,000.00. He had learned of the inquiry and had obtained a copy of same but we had not received a copy. As the Company did not do business direct but through their distributor, he requested that we submit a bid in behalf of the Company which he represented. We did so and were the successful bidder.

The writer was called into consultation regarding some of the items and upon his visit made mention of the fact that our sales representative usually covered these matters but due to his absence I had made the call to get the order in motion with complete detail. I mentioned the name of the sales representative but he was not known either to the purchasing department nor the engineering division. However, as the account was assigned to the salesman he received credit for the sale.

In a like manner many sales representatives of organizations receive credit for sales which are generated by someone else or by the organization due to its long record, its reputation and its advertising campaigns.

It therefore becomes the job of the sales manager of every organization to again learn the technique of sales training and to so train the sales force that they can do a thorough selling job fully conversant with the product which they are distributing and the advantages of that product.

In training the sales force they should always be taught to give a prospect the selection of one product or another product instead of just one item. To further explain—take the man at the soda fountain who received your order for a malted milk. There is the type which takes your order and gives you a straight malted milk. There is the other type that asks if you will have it with one or two eggs, or with one or two balls of ice cream.

You undoubtedly can see my point. The man who asks the question will invariably have you say "with either one or two eggs, or one or two balls of ice cream", thereby increasing his sales volume. When you are given a selection between one or the other you will invariably select one of the suggestions. If you are given no alternative you accept that which is specified.

May I also recommend to management and salesman the reading of "Acres of Diamonds" by Russell H. Conwell, a small pamphlet which portrays the futility of seeking afar that which you will find in your immediate whereabouts.

Some salesmen and managements at times spread themselves too thin and too far seeking business when they could be cultivating that business with greater concentration on the prospects in their immediate vicinity. It is the old story of the grass looks greener in the other fellow's yard. Greater concentration and more cultivation will reveal more sales prospects and more sales volume among those on whom you regularly call.

Only through a sincere sales effort can merchandise be moved from the manufacturer to the consumer. Thereby we will be able to keep our manpower employed and keep our American public supplied with those items desired by them to maintain our American way of life.

No product no matter how good it is will today sell itself in any quantity. Only through a well developed sales organization can this link between manufacturer and consumer be enhanced. It therefore becomes the duty of every organization with merchandise to move or service to render to make an intense effort to develop that sales force. That sales force is a combination of personnel and advertising to spread the message.

The CAMERA CLICKS at Chicago

At the 36th Annual Convention of NEWA, members hear the Supply Manufacturers Program Panel, Herbert Metz presiding

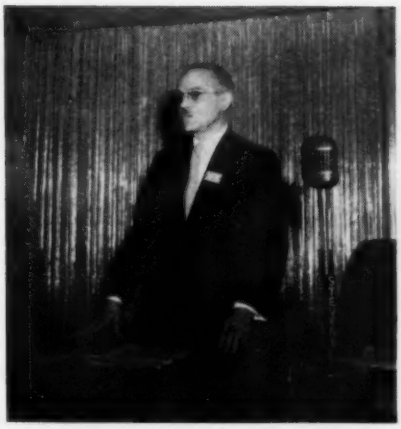
C. L. Nicholson, Pass & Seymour, Inc., speaks over the shoulder of A. F. Hills.

Herbert Metz of the Graybar Electric Co. is presiding, as manufacturers answer questions regarding the outlook in their particular lines.

The adequate wiring situation was covered thoroughly for NEWA members by A. E. Schanuel of the National Adequate Wiring Bureau, who was introduced by Herbert Metz.

L. M. Nichol, who reported to wholesalers on the findings of the Technical Sub-Committee of the Operating Cost Committee, is introduced by president, Lyle Fife, right.

A. E. Newman, the General Electric Company, Bridgeport, Connecticut



H. T. Bussmann, the Bussmann Manufacturing Co., St. Louis, Missouri

A. F. Hills, Crouse-Hinds Co., Syracuse, New York

C. Lewis Hull, the Square D Company, Detroit, Michigan

F. G. Kraut, the Frank Adam Electric Company, New York, New York

W. E. Sprackling, Anaconda Wire & Cable Co., New York, New York

Nothing unusual in this early morning registration scene—it was the result of the largest attendance ever for one of NEWA's annual meetings. More than 1400 people were there.

E. B. Latham reports on the successful effort to organize appliance wholesalers as a separate division of NEWA. Mr. Latham, with E. B. Ingraham, guided this activity.

How You Can Appraise Potential Sales In Your Territory

By using certain known factors to start with, proper application of the PAM Base, published in this issue, will facilitate sound planning for future selling in any given territory

By Willard Hall

THE United States Department of Commerce, Bureau of the Census, has published for each State, a book headed as follows:

"HOUSING, Second Series, General Characteristics."

These may be obtained from the nearest Regional Office of the Department of Commerce or the Government Printing Office, Washington, D. C., and the price varies from 25c to 50c per copy depending on the State. You will find that this book on HOUSING gives a tremendous amount of valuable data from the 1940 census broken down by Counties, Cities and even small towns, and this information is the basis from which we start in our calculations.

As our example in the application of the PAM Base, we have chosen the County of Westchester in the State of New York. Here is part of the information that may be gleaned from the HOUSING book of New York State: (Table 1).

TABLE 1—1940 CENSUS DATA

	Westchester County
Total Population	573,558
Size of Family	3.88
Number of Dwellings	161,213
Wired Homes	156,381
Dwellings with Radio	139,523
Mechanical Refrig'n	105,428
Electric Ranges	1,147

At the start it is assumed that the national figures for the Number of Civilians Employed per Family, (Col. E. page 55), will be the same in all areas so we can disregard this factor for the present. We then list the number of Wired Homes, (Col. G), beginning with the year 1940 and ending with the year 1946. The percentage increase for each year (1941–1946) is then figured over our base Census figure of 1940. From Table 1, we obtain the number of Wired Homes shown in the 1940 Census for Westchester County and increase this by the same percentage as already determined. The results are shown below:

Wired Homes—Shifts in Population

In certain parts of the United States there have been population shifts of civilians from one place to another where manufacturers of war materials offered higher wages. How permanent are these shifts? Come post-war, will the workers return home with their savings and bonds or will they carry on where they now are? Perhaps the best way to tackle this problem is to have a heart-to-heart talk with the central station in your town. Show them what you are trying to do and very likely they will help you by giving you the number of residential meters in 1940 and show how this figure has increased or decreased up to date. They may also have some ideas on

TABLE 2—WIRED HOMES

Year	Wired Homes	% Increase Over 1940	Westchester County
1940	27,610,000	.....	156,381
1941	29,186,000	5.7%	165,295
1942	30,579,000	10.8%	173,270
1943	31,371,000	13.6%	177,649
1944	31,942,000	15.7%	180,933
1945	32,382,000	17.3%	183,435
1946	33,042,000	19.7%	187 188

the 1946 outlook indicating whether they expect the workers to return or not or if the town will grow in population for other reasons.

In the case of Westchester County, the figures submitted by the public utilities who serve this area are below the national average in growth from 1941 to 1946. There are two reasons for this. The percentage of unelectrified dwellings in 1940 was much smaller than the national average and Westchester County, being a suburban area where little war-work is done, has had very few new dwellings erected and does not expect to have many until after 1946. So we tabulate below the *calculated*

TABLE 2A—WIRED HOMES

Year	From Table 2	Actual and Projected
1940	156,381	161,075
1941	165,295	162,541
1942	173,270	162,961
1943	177,649	163,261
1944	180,933	164,325
1945	183,435	165,900
1946	187,188	167,685

Wired Homes for Westchester County from TABLE 2 and show beside them the *actual and projected* Wired Homes as given by the utilities.

Civilian Workers per Family—Disposable Income

In towns and cities where little or or no war work is being done, the earnings of the local workers should be carefully considered. The white collar class of civilian workers has not, as a rule, benefitted by the high wages being paid in war plants. Their salaries and incomes are pretty much the same and have even less purchasing power due to higher taxes and inflation. Have a talk with the manager of your bank. Very likely he can give you an idea on the local disposable income figures and savings both in cash and bonds and you can figure on how well the local people will be "heeled" to buy appliances when the green light flashes.

In Westchester County the number of civilians employed per family is probably equal to the national average but the *increase* in incomes since 1940 is not. Westchester County, a suburb of New York City, has a limited number of war plants, none of them being very large. The residents are mostly of the white collar class who work in New York City and their disposable income per family certainly has not kept pace with the national average. So it seems reasonable to apply a reducing factor for each year and after careful consideration, the following were selected:

TABLE 3—REDUCING FACTORS

Year	Reduction
1940	0%
1941	4.%
1942	8.%
1943	12.%
1944	13.%
1945	14.%
1946	15.%

Now we are ready to construct our PAM Base for Westchester County. (Table 4 below).

Starting with our Wired Homes in Westchester County, actual and projected (Table 2A), we multiply these by the national figures on Civilian Workers per Family as shown in Col. E. (page 55), and tabulate the product in Col. 3, Table 4. Then we apply the reduction factors to the disposable income per family, as developed in Table 3, and shown in Table 4, Col. 4, and finally, by multiplying together the figures in Col. 3 and 4, we arrive at the Westchester County PAM Base as per Col. 5.

Having established our PAM Base for Westchester County we compare it with the National PAM Base (Col. H, page 55) and calculate the ratio that exists between them.

Using the Ratio figures developed in Table 5, we can begin breaking down the national figures on projected appliance sales and proportion them to Westchester County. Refrigerators will serve as an example of how this is done.

On January 1, 1947, the intent to buy a new refrigerator (pent-up demand) is calculated as our Projected

TABLE 4—PAM BASE FOR WESTCHESTER COUNTY

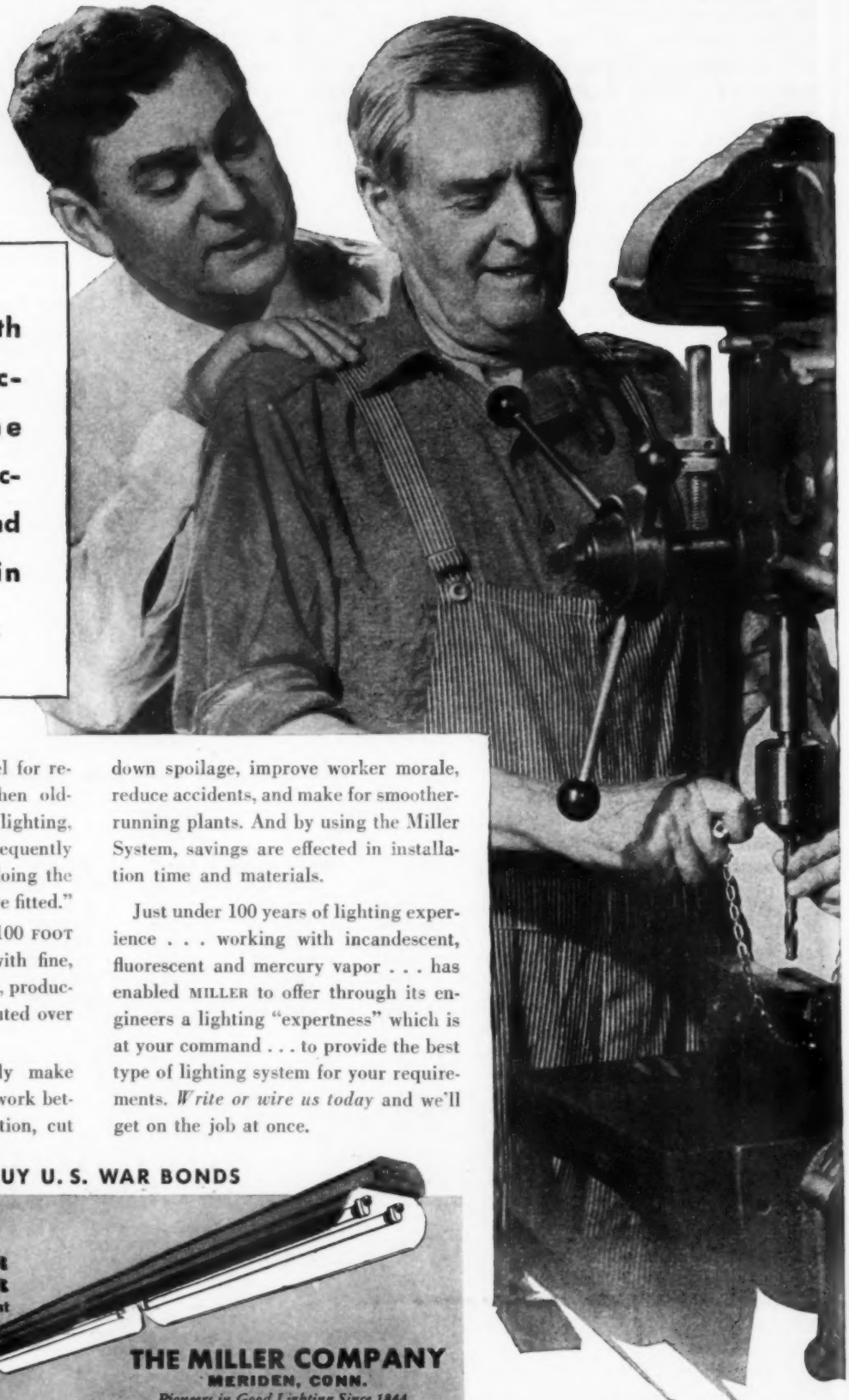
Column	1	2	3	4	5
Year	Westchester Wired Homes Table 2A	Civilian Workers per Family Col. E (pg. 55)	Product Col. 1 X Col. 2	Reduction Factors from Table 3	Westchester PAM Base Col. 3 X Col. 4
1940	161,075	1.337	215,357	0	215,357
1941	162,541	1.366	222,031	.96	213,150
1942	162,961	1.425	232,219	.92	213,641
1943	163,261	1.407	229,708	.88	202,143
1944	164,325	1.423	233,834	.87	203,436
1945	165,900	1.437	238,398	.86	205,022
1946	167,685	1.445	242,305	.85	205,959

TABLE 5—PAM BASE RATIOS

Year	PAM BASE National (pg. 55)	PAM BASE Westchester County Table 4	Ratio
1940	36,914,000	215,357	171:1
1941	39,868,000	213,150	187:1
1942	43,575,000	213,641	204:1
1943	44,139,000	202,143	218:1
1944	45,453,000	203,436	223:1
1945	46,533,000	205,022	227:1
1946	47,746,000	205,959	232:1

"Gramp" YAEGER'S BACK ON THE JOB!

...and



Miller is back with 100% steel reflectors—the same rigid steel construction you knew and used and liked in 1941 and 1942.

WPB has lifted the ban on steel for reflectors! And WPB says, "When old-timers are provided with good lighting, tailored to their needs, it is frequently possible for them to keep on doing the precision work for which they are fitted."

MILLER 50 FOOT CANDLER or 100 FOOT CANDLER will provide plants with fine, man-made *daylight* . . . adequate, productive illumination evenly distributed over every working surface.

Better lighting will actually make workers see better, feel better, work better. It will help speed production, cut down spoilage, improve worker morale, reduce accidents, and make for smoother-running plants. And by using the Miller System, savings are effected in installation time and materials.

Just under 100 years of lighting experience . . . working with incandescent, fluorescent and mercury vapor . . . has enabled MILLER to offer through its engineers a lighting "expertness" which is at your command . . . to provide the best type of lighting system for your requirements. *Write or wire us today* and we'll get on the job at once.

BUY U. S. WAR BONDS

MILLER

50 FOOT CANDLER
100 FOOT CANDLER
Continuous Wireway Fluorescent Lighting Systems

THE MILLER COMPANY
MERIDEN, CONN.
Pioneers in Good Lighting Since 1844
● MILLER offers a complete line of filament and fluorescent lighting equipment

A MILLER Message in line with WPB's helpful handbook, "Plant Efficiency."

TABLE 6—REFRIGERATORS

Year	National Sales (Pg. 61)	Ratio	Westchester County
1940	2,600,000	171:1	15,204
1941	3,500,000	187:1	18,716
	Projected Sales		
1942	3,791,000	204:1	18,583
1943	3,884,000	218:1	17,816
1944	4,101,000	223:1	18,390
1945	4,280,000	227:1	18,854
1946	4,480,000	232:1	19,310
Total	20,536,000	221:1	92,953

Sales of 92,953 boxes. (See Table 6).

From Table 2A we see that the increase in Wired Homes in Westchester County from the end of 1941 to the end of 1946 is 5,144 dwellings. Obviously the saturation here would be 100% for it is inconceivable that any of these homes would be without mechanical refrigeration. Deducting 5,144 from our pent-up demand figures of 92,953 leaves a balance of 87,809.

Of the 105,428 refrigerators installed prior to 1940 (Table 1), we assume that a balance of 87,809 or 83.3% will be ready for replacement on January 1, 1947. Assuming no production until then, the figures on January 1, 1947, would be: (see Table 7 below).

Saturation and Life

The number of any appliance in use at any given time, in other words, the saturation, is an important factor in considering its projected sales. Age and absolescence also cut an important figure and it is here that you will be called upon to exercise your knowledge and judgment of the appliance and the area under consideration.

We know that there are many families who are in need of new refrigerators at the present time and who will buy a new one as soon as they are available. There is a still larger number of families who would like to have a new refrigerator but who plan to hold off buying until the new "miracle" models are ready. When the day of the free flow of merchandise dawns, there will probably be improvements in refrigerators such as we have never imagined plus intensive advertising and sales promotion campaigns designed to make any owner of a current refrigerator dissatisfied with his box.

Some authorities think that while the *actual* life of a refrigerator is ten years, the *satisfaction* life is about seven years. Pride of ownership, outstanding improvements in current models, etc., cause the average owner to become dissatisfied with his present equipment in that time.

In the problem we have been considering, the points that would call for your judgment are the 83.3% replacement sales and the 86.1% potential saturation at the end of 1946. Vary either or both of them and you change the intent to buy (pent-up demand) figure of 92,953. In the case of Westchester County we are inclined to let them ride even though the potential saturation figure of 86.1% seems high.

Don't get the idea that the projected sales figures are a lot of "moonshine" and are not worthy of consideration. They represent pure mathematical projections of what "could be" based on nine years of past performance. No matter how fantastic some of the figures may appear, they still have a sound mathematical basis and reason for their existence. They give you a platform on which to base your calculations on post-war appliance sales. And now one last happy thought.

TABLE 7—SATURATION

Refrigerators installed prior to 1940 and not yet ready for replacement—105,428 minus 87,809	17,619
Sales made in 1940 (Table 6)	15,204
Sales made in 1941 (Table 6)	18,716
Intent to buy (pent-up demand) 1942 to 1946	92,953
Total refrigerators in use and ready to buy, 1947	144,492
Wired Homes on January 1, 1947 (Table 2A)	167,685
Potential Saturation	86.1%

Do You Like Fast Company?

If you handled refrigerators, laundry equipment or any other major appliance in the past you will remember that sales usually fell off in the fall and winter months. The need for these things still existed but fuel, clothing, furniture and house furnishings were badly needed too and completed keenly and successfully for the purchaser's dollar.

Turn to the list of DURABLE GOODS. Not all but many of these lines of merchandise have been badly cut or completely discontinued since 1941 and the manufacturers are just as hungry for business as we are. So when the great day comes and the derby of Free Enterprise is to be run, there will not be 4 or 5 horses at the barrier but 400 to 500 and the race will last not 4 or 5 months but 12 months—year in and year out. You probably are familiar with aggressive advertising and sales promotion methods and high pressure sales tactics but, just wait—you ain't seen nothin' yet! The seller's market on appliances will probably continue for several years until the production catches up to the pent-up demand but, competition for the consumer's dollar will be keen from the very start.

JUST MARRIED
"That Smithson's the luckiest guy in the Army!"
Isn't he! He's got the girl . . . and there's that prize of prizes, a Toastmaster toaster, for the pleasantest breakfasts in the world, with the crisp hot slices popping up briskly . . . and no watching, turning, or burning.
Toastmaster toast is nourishing, too. It's an appetizer that tempts you to eat hearty at breakfast and start the workday right. It's a generous supplier of protein and carbohydrate. And it's an ideal extender of scarce or rationed foods. Serve them on toast!
Owning a new, beautiful, efficient Toastmaster toaster, someday, is something to look forward to . . . something to plan for. You might even buy an extra War Bond, just for that!
KEEP IT NEW . . . MAKE IT LAST
A Toastmaster* toaster is a valuable possession. Treat yours well. Don't risk damaging the heating elements by prying inside with a fork. Don't jerk the cord or coil it around a hot toaster. Remove crumbs frequently. And see your dealer for repairs.
TOASTMASTER Toasters
In "Life," "Collier's," and "Saturday Evening Post"
"Look! Here's a gift we'll get twice"
"See this card? It's from Irene and Bill . . . with a War Bond now for a Toastmaster toaster later. And then, just think! . . . we'll have honeymoon breakfasts all over again."
That's a bright solution for a real problem. Naturally, there aren't any Toastmaster* toasters to be had nowadays . . . our Army-Navy "E" flag, with its added star, means we're making warmer stuff. And you are patriotically buying War Bonds. . . . What better use could you possibly find for one of them?
To add brightness to your gift, send with it the card pictured in miniature below. The actual card, handsomely engraved and ready for your signature, is yours for the asking. Write for it—to Toastmaster Products Division, Dept. A, McGraw Electric Co., Elgin, Ill.
A Gift "in Bond"
Write for This Card
TOASTMASTER Toasters

POSTWAR PLANTING!

National magazines with *43 million* civilian readers—and millions more in the armed forces—are carrying the advertising of *Toastmaster* toasters. The miniatures above, reduced from striking half pages, show how the seeds of future sales are being planted *now.*

When our factory turns from its 100% war job and is again making *Toastmaster* products, this insistent campaign is going to pay dividends to every distributor handling the Toastmaster line.

★ ★ ★

Write for free 26-page illustrated folder showing more *Toastmaster** advertisements and telling about present production and future prospects. Address Toastmaster Products Division, McGraw Electric Co., Elgin, Ill.

ARMY E NAVY

TOASTMASTER *Products*

REG. U. S. PAT. OFF.

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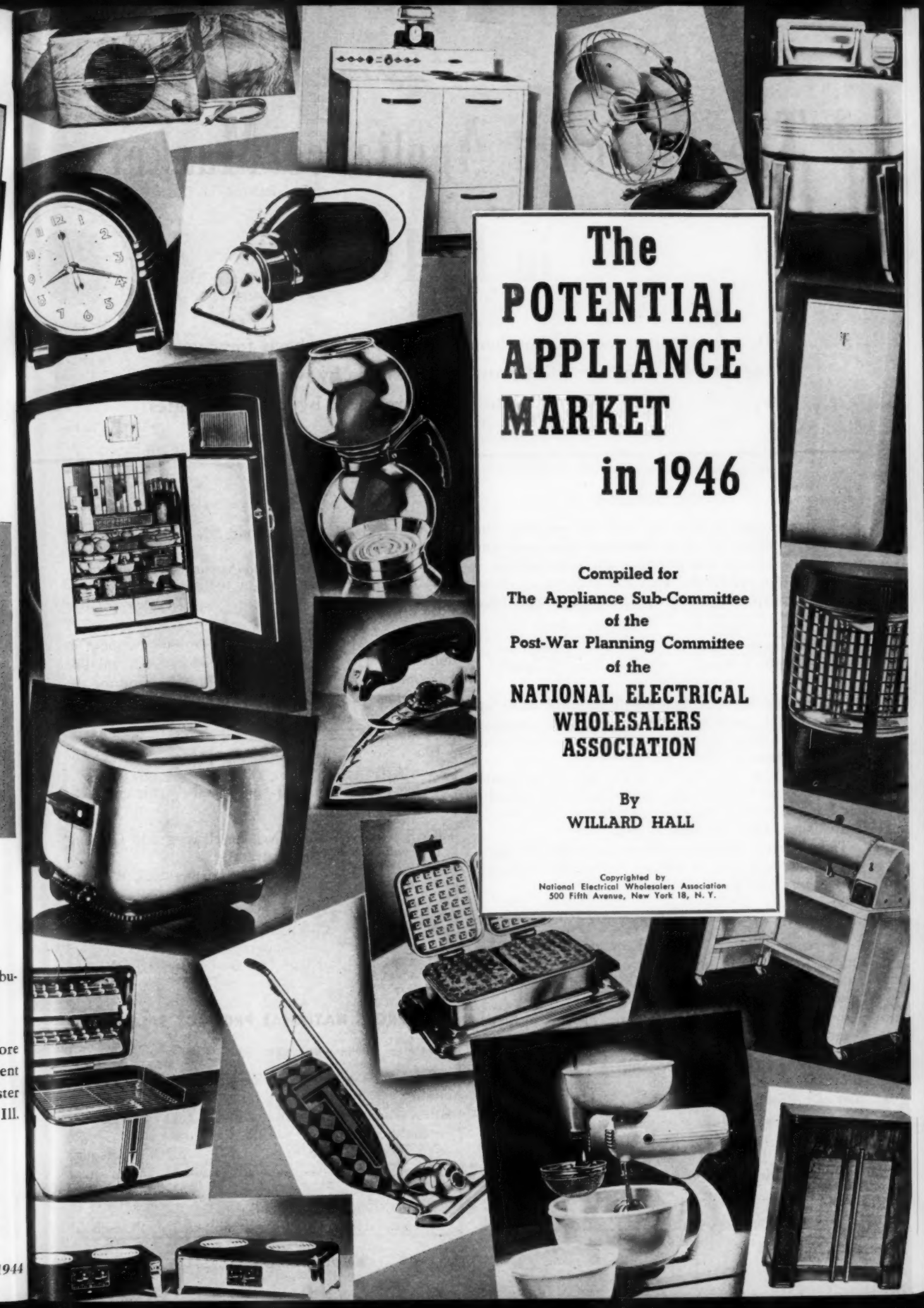

The POTENTIAL APPLIANCE MARKET in 1946

Compiled for
The Appliance Sub-Committee
of the
Post-War Planning Committee
of the
NATIONAL ELECTRICAL WHOLESALERS ASSOCIATION

By
WILLARD HALL

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National Electrical Wholesalers Association
500 Fifth Avenue, New York 18, N. Y.

The Potential Appliance Market in 1946

By using known facts and authentic records as the basis for projecting future trends, Mr. Hall provides a formula by which those many currently quoted "guess-"timates can be replaced by sound estimates

(COPYRIGHTED 1944 BY NATIONAL ELECTRICAL WHOLESALERS ASSOCIATION)

LIKE all other writers on post-war markets, the author makes the usual denials of possessing any powers of prophecy and disclaims any responsibility if eventually, the end results don't jibe with the projected figures. Of course the conditions, post-war, are assumed to be ideal:

1—Full employment
2—Moderate prices
3—Free enterprise
4—Great prosperity

Any change in these four conditions will louse up the party and yours is the responsibility of deciding what changes from the perfect, if any, may occur to mar the great dream of 1946.

The figures at the end of this paper show what "could be". They are based on pure mathematical projections and these in turn are based on our national experience in appliance sales from 1933 to 1941.

There is every reason to believe that conditions, post-war, will be such that we will see the greatest appliance market ever—BUT—

A Quick Review

To begin with, and in order to get our post-war sights raised to the proper angle, we should review briefly the forecasts of Mr. S. Morris Livingston in "Markets After the War."

In the listings below are the things which are included under:

First—Gross National Product Sales—All the multitude and multiplicity of things which go to make up the total sales of all the sales managers in the United States—everything from soup to nuts.

Second—The Durable Goods section of the above in which is included all electrical appliances, especially the following:

No. 4. Heating and Cooking Apparatus
No. 5, Refrigerators, Washing Machines and Sewing Machines
No. 6. Electrical Household Appliances
No. 9. Radio Apparatus and Phonographs
No. 12. Clocks and Watches

In Table A, columns A and B show the amount in dollars of—The Gross National Product Sales and The Sales of Durable Goods from 1929 to 1943 and for the year 1946 as projected by Mr. Livingston. Note particularly the increase in percentage of the 1946 estimate over the 1940 sales.

Chart No. 1 visualizes the sale of these two groups of products.

In like manner the sales figures and graphic visualizations are given for:

Table B, No. 4—Chart No. 2—Heating and Cooking Apparatus
Table B, No. 5—Chart No. 3—Refrigerators, Washers and Sewing Machines
Table C, No. 6—Chart No. 4—Electrical Appliances
Table C, No. 9—Chart No. 5—Radio Apparatus and Phonographs
Table C, No. 12—Chart No. 6—Clocks and Watches

GROSS NATIONAL PRODUCT SALES

CONSUMER GOODS AND SERVICES

Perishable Goods—Food, Tobacco, drugs, toilet preparations, cleaning and polishing preparations, printed matter, stationery, paper products, toys and games, household coal and oil, gasoline for cars.

Semi-Durable Goods—Clothing, shoes, personal furnishings, dry goods, semi-durable house furnishings, tires and tubes, parts and accessories for cars.

Durable Goods—As described in detail below.

Services—Housing, home maintenance, household

By Willard Hall

Vice President, Times Appliance Company, Inc.

Compiled for
The Appliance Sub-Committee
of the
Post War Planning Committee
of the
National Electrical Wholesalers Association

utilities, transportation, personal and medical care, death expenses, recreation.

PRODUCERS GOODS

Equipment—All machinery, all prime movers, pumps, tractors, office machinery, furniture and fixtures, tools, business automobiles, ships, aircraft, locomotives and cars.

PRIVATE CONSTRUCTION

Residential and other.

GOVERNMENT

Public construction and other services.

DURABLE GOODS

1. Household furniture
2. Floor coverings
3. Miscellaneous durable house furnishings
*4. Heating and cooking apparatus
*5. Refrigerators, washing machines and sewing machines
*6. Electrical household appliances
7. Other household appliances.
8. China, glassware, tableware, and household utensils
*9. Radio apparatus and phonographs
10. Pianos and organs
11. Other musical instruments
*12. Clocks and watches
13. Jewelry and sterling silverware
14. Books & other durable printed matter
15. Writing equipment
16. Ophthalmic products, surgical and orthopedic appliances
17. Monuments and tombstones
18. Luggage
19. Wheel goods, durable toys, and sports equipment
20. Passenger cars
21. Pleasure-craft

The easiest way, of course, would be to take any given

Table A

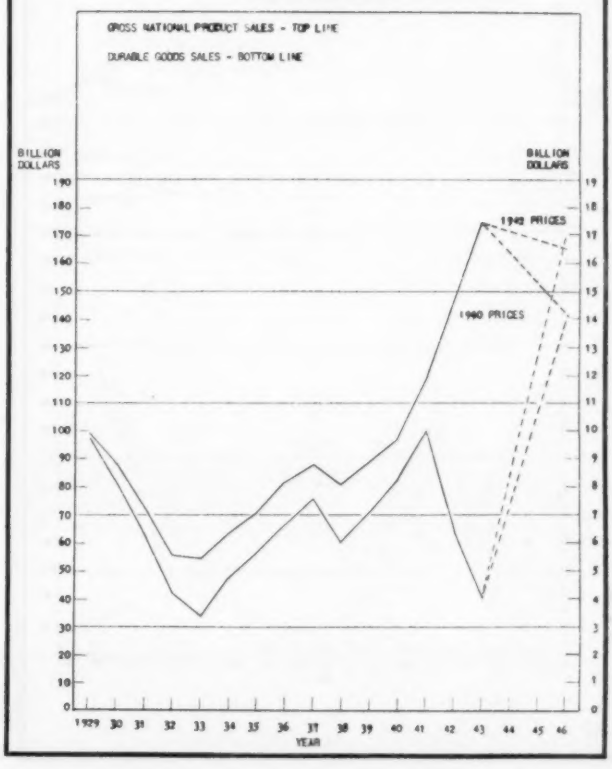
GROSS NATIONAL PRODUCT SALES
DURABLE GOODS SALES

Chart No. 1

Year	A Billion Dollars Gross National Product Sales	B Million Dollars Durable Goods
1929	$99.4	$9863.0
1930	88.2	8127.3
1931	72.1	6320.1
1932	55.4	4194.6
1933	54.8	3426.0
1934	63.8	4809.5
1935	70.8	5646.9
1936	81.7	6737.9
1937	87.7	7556.9
1938	80.6	6044.4
1939	88.6	7122.0
1940	A 97.0	C 8277.9
1941	119.0	10310.0
1942 (Est.)	151.6	6400.0
1943 (Est.)	175.0	4000.0
1944		
1945		
*1946 (1940 prices)	A' 142.0	C' 13980.0
1946 (1942 prices)	B' 165.0	D 16878.0
Increase A' over A	46.4%	C' over C 68.9%
Increase B over A	70.1%	D over C 103.9%

Figures in these tables were taken from "Markets After the War" by S Morris Livingston, U. S. Department of Commerce, "from "Plan Postwar Jobs—Now" Field Development Division, Committee for Economic Development, Washington, D. C. "Your Business After the War," October, 1943, by the Research Institute of America also gives substantially the same figures. See this publication for 1940 sales figured at 1942 prices.

Chart No. 1


GROSS NATIONAL PRODUCT SALES - TOP LINE
DURABLE GOODS SALES - BOTTOM LINE
BILLION DOLLARS
BILLION DOLLARS
1942 PRICES
1940 PRICES
1929 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46
YEAR

appliance with which you are familiar and decide under which of the five classifications (Nos. 4, 5, 6, 9, or 12) it falls. Then take the 1940 sales and increase them by the proper percent, to get the projected 1946 volume. The result you would probably view with: 1—A nod of approval. 2—A grunt of doubt. 3—A snort of disgust.

Example: National sale of electric household irons 1940.

Number: 5,171,000, Retail Value: $18,854,000.

We assume that an electric iron is classed under "Electrical Appliances" in Table C, No. 6. The 1946 projected sales show an increase over 1940 actual sales of 56.7% figured at 1940 prices; 79.2% figured at 1942 prices.

So, in 1946 the sale of electric irons would be projected at 8,103,000 units having a value of between $29,544,000 at 1940 prices and $33,786,000 at 1942 prices or maybe even higher. Interesting, if true, isn't it?

But there must be another way of tackling the problem which, if not more accurate, is at least more convincing. One that will supplement and act as a check on Mr. Livingston's figures and also tell us something about the great unfilled need for electrical appliances that has been building up (we hope) since WPB pulled the plug in 1941–42.

To this end is offered the development of a base, reference line to be used as an aid in computing the

Table B

DURABLE GOODS SALES

#4—Heating and Cooking Apparatus
#5—Refrigerators, Washing and Sewing Machines

Millions of Dollars

Year	Chart No. 2 #4—Heating and Cooking Apparatus	Chart No. 3 #5—Refrigerators Washers and Sewing Machines
1929	$364.7	$376.5
1930	332.3	340.3
1931	245.3	293.8
1932	160.2	194.6
1933	143.3	234.5
1934	205.8	292.3
1935	262.1	325.8
1936	337.5	394.2
1937	371.9	491.7
1938	297.0	344.3
1939	344.5	381.3
1940	C 433.7	C 460.4
1941	650.0	640.0
1942	.....	.....
1943	.....	.....
1944	.....	.....
1945	.....	.....
*1946 (1940 prices)	C′ 688.0	C′ 699.0
1946 (1942 prices)	D 814.0	D 799.0
Increase	C′ over C 58.6%	C′ over C 51.8%
Increase	D over C 87.7%	D over C 73.5%

Figures in these tables were taken from "Markets After the War" by S. Morris Livingston, U. S. Department of Commerce, "from "Plan Postwar Jobs—Now" Field Development Division, Committee for Economic Development, Washington, D. C. "Your Business After the War," October, 1943, by the Research Institute of America also gives substantially the same figures. See this publication for 1940 sales figured at 1942 prices.

Chart No. 2

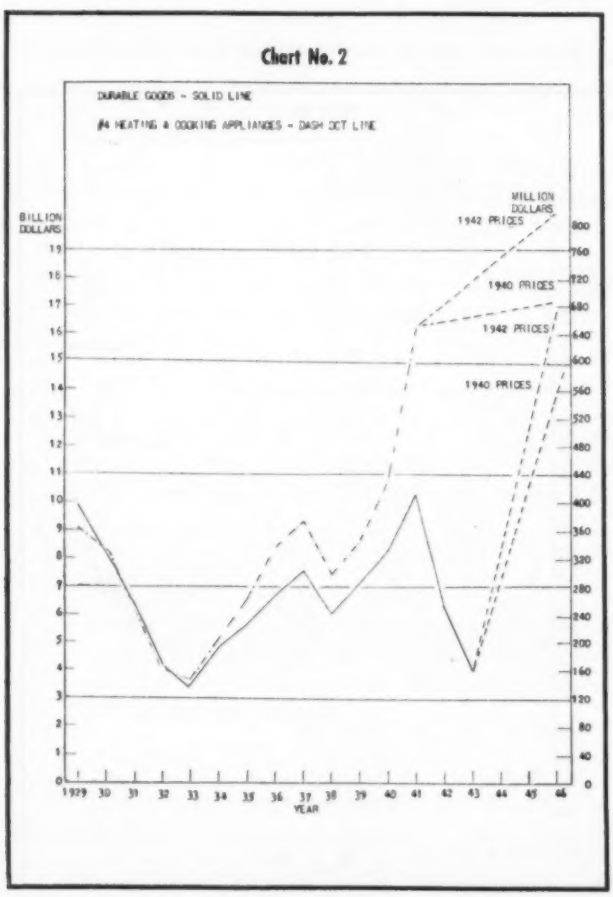


Chart No. 3

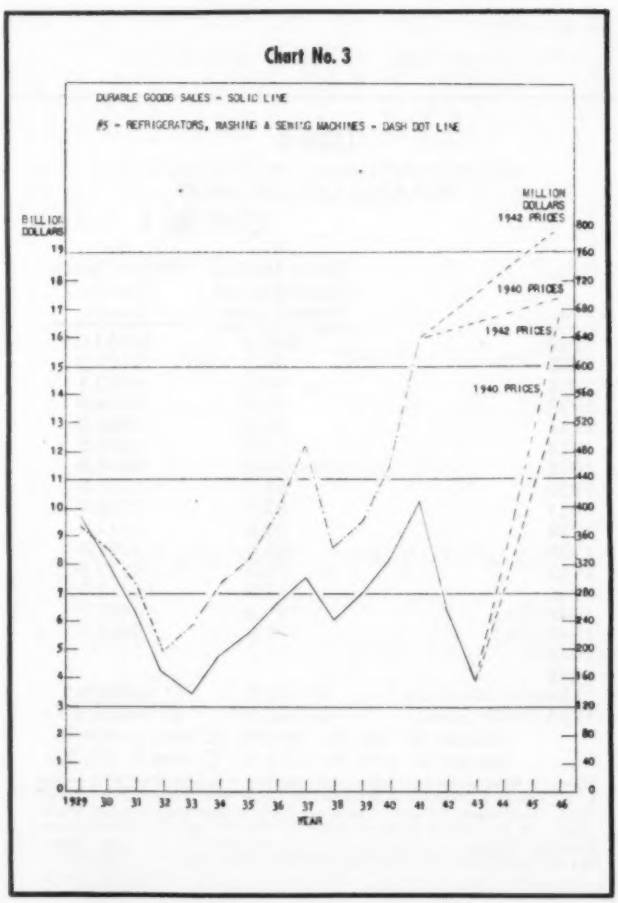


Table C

DURABLE GOODS SALES

#6—Electrical Appliances
#9—Radio Apparatus and Phonographs
#12—Clocks and Watches

Millions of Dollars

Year	Chart No. 4 #6 Electrical Appliances	Chart No. 5 #9 Radio Apparatus and Phonographs	Chart No. 6 #12 Clocks and Watches
1929	$138.5	$878.1	$187.0
1930	135.3	813.4	176.2
1931	121.1	475.5	133.3
1932	79.1	225.4	90.2
1933	67.3	184.9	65.8
1934	104.3	236.5	96.4
1935	130.2	282.4	100.5
1936	159.2	358.7	127.4
1937	175.6	366.5	184.9
1938	169.8	310.4	151.9
1939	194.7	377.8	178.2
1940	C 217.0	C 415.6	C 205.1
1941	260.0	500.0	270.0
1942	.....	.....	.....
1943	.....	.....	.....
1944	.....	.....	.....
1945	.....	.....	.....
*1946 (1940 prices)	C' 340.0	C' 807.0	C' 326.0
1946 (1942 prices)	D 389.0	D 1100.0	D 393.0
Increase	C' over C 56.7%	C' over C 94.2%	C' over C 58.9%
Increase	D over C 79.2%	D over C 164.6%	D over C 91.6%

Chart No. 4

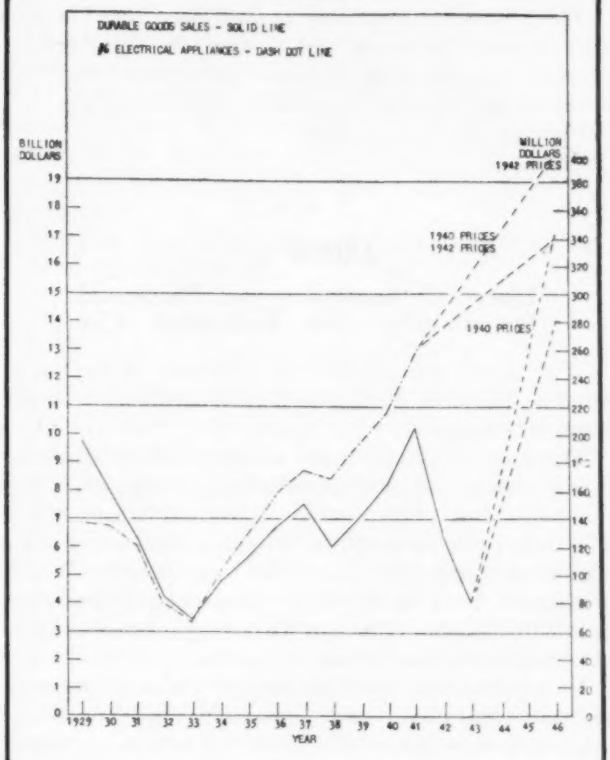


Chart No. 5

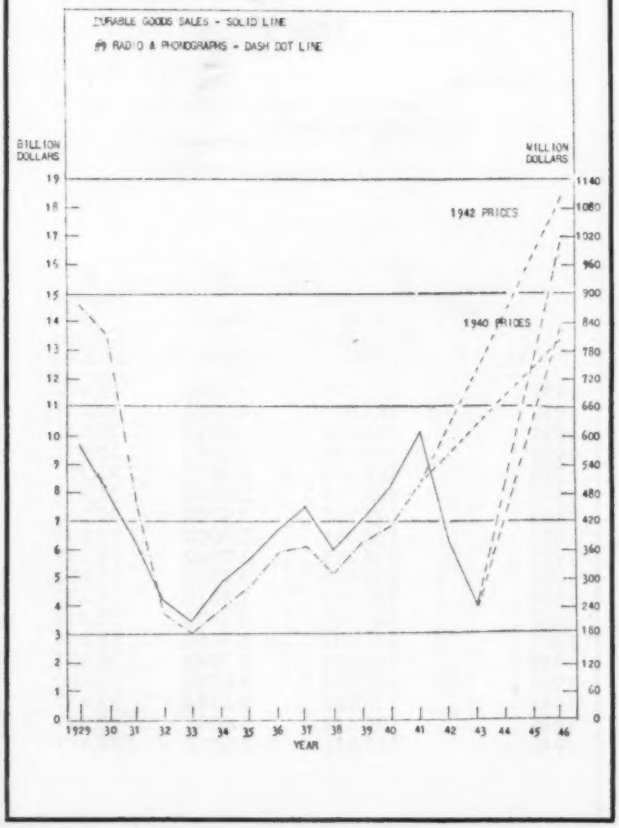
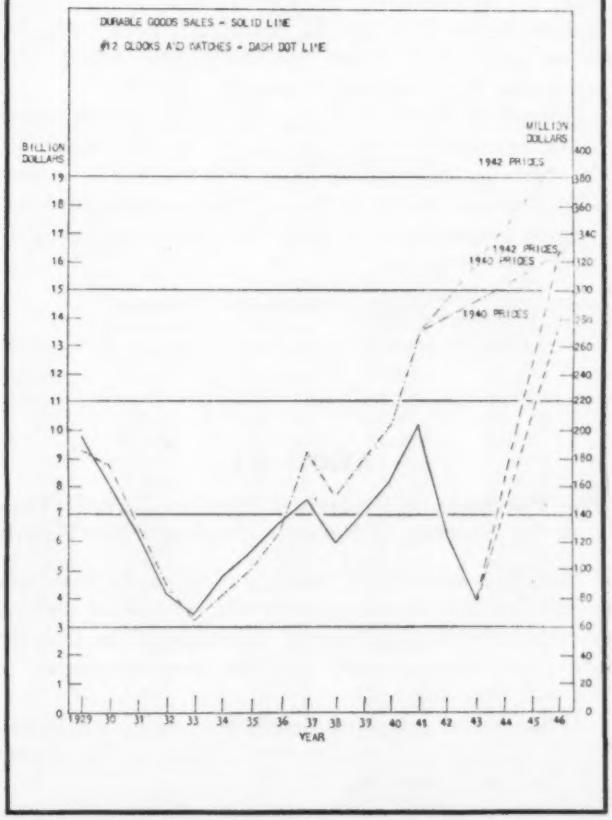


Chart No. 6



potential demand for electrical appliances in the years 1942 to 1946.

This Potential Appliance Market base line (hereinafter referred to as the PAM base) is developed by properly relating three axioms or self-evident truths all of which apply to the electrical appliance market.

First we have to consider:

AXIOM #1

Electrical Appliances are Purchased for Family, Not Individual Use

With a few exceptions, one appliance of each kind satisfies the needs of *all* members of the family for one form of service.

The two, three or more refrigerators which your friend owns are all used for different purposes in serving the family as a whole, not for individual or selfish use. The little radio up in Mabel's room is hers—sure—she bought and paid for it with her own money. But, if the big set down in the living room goes on the blink, then Mabel's little radio will be brought down to *serve the family* until the big set is repaired.

No appliance, not even the electric shaver, is personal and individual in the same sense that a tooth-brush or a pair of shoes is personal. Any or all of them can serve any member of the family if the need arises.

So our first concern is with the number of purchasing units—the number of families—in the United States—not the total population.

Figures in Column A, Table D, are from the Statistical Abstract of the United States 1942, Table No. 12, Page 11 also from U. S. Department of Commerce Bulletin Series P-3, No. 34, March 22, 1943. Figures for the years 1943–44 and 1946 were interpolated. All population figures are as of July 1.

Column B, Table D, shows the U. S. Census report on the number of persons per family for 1930 and 1940. The years in between and from 1940 to 1946 have been calculated on a yearly decline of .03264 persons per year. Figures are adjusted to show the family size on July 1st of each year.

Formula $\frac{\text{A—Population of U. S.}}{\text{B—Persons per Family}} = \text{C — Number of Families}$

And then we have:

AXIOM #2

The Purchase of Electrical Appliances Will Vary with the Number of Persons Employed per Family

Here is a self-evident truth; for obviously, if no one in the family is working, there will be little or nothing spent on electrical appliances. Savings will be hoarded and food, clothing, fuel, and the other necessities of life will have first call.

When Mabel gets a job things will ease up a little and maybe Mother will get the electric iron or the toaster she has been wanting.

When the Old Man connects, things will grow brighter still and the new washer and new vacuum cleaner will become possibilities. And, as the savings mount, then the other and fancier appliances will make their appearance.

The figures in Column C, Table E, were, of course, carried over from the discussion of Axiom No. 1.

Those in Columns D1 to D4, Table E, were taken from Tables I and IV, "Markets After the War" for the years 1929 to 1939 and 1946. Figures for 1940 to 1943 came from the Labor Force Bulletin, No. 18, December 10, 1943, Department of Commerce. Figures for 1944–1945 were interpolated at the rate of 20%, 30%, 50% for Column D1 and 33⅓% each year for Column D3.

In passing, note that the number of persons employed per family in 1946—1.445, is still lower than the score for 1929—1.573 persons employed per family.

Formula $\frac{\text{D3—Civilians Employed}}{\text{C—Number of Families}} = \text{E—Civilians Employed per Family}$

And finally we come to:

AXIOM #3

Families using electrical appliances live in wired homes

Here is another self-evident truth for no electrical appliance will run without "juice."

The figures in Column E, Table F, were carried over from the discussion of Axiom No. 2.

Those in Column F, Table F, are from Bulletin 10—

Table D

A—Population

B—Persons per Family

C—Number of Families

Year	A Population of the United States Millions	B Persons per Family	C Number of Families Millions
1929	121.770	4.1280	29.498
1930	123.077	4.0954	30.052
1931	124.040	4.0628	30.531
1932	124.840	4.0301	30.977
1933	125.579	3.9975	31.414
1934	126.374	3.9648	31.874
1935	127.250	3.9322	32.361
1936	128.053	3.9000	32.834
1937	128.825	3.8669	33.315
1938	129.825	3.8343	33.859
1939	130.880	3.8016	34.428
1940	131.970	3.7690	35.014
1941	133.203	3.7364	35.650
1942	134.656	3.7037	36.357
1943	135.904	3.6711	37.020
1944	136.285	3.6384	37.457
1945	136.448	3.6058	37.841
1946	137.271	3.5732	38.417

1942 of the Edison Electric Institute, Table No. 14, Page 20, and represent the residential customers, both urban and rural, shown in the Institute's records. Each figure is the average for the year. It was estimated that the growth in residential customers would be 300,000 in 1944, 500,000 in 1945 and 700,000 in 1946.

Column G—Figures shown in the 1940 census report are as follows:

WIRED DWELLINGS	
Owner Occupied	12,217,393
Tenant Occupies	15,392,816
Total	27,610,209
Vacant, for sale or rent	1,323,712
Vacant, not for sale or rent	436,720
Grand Total	29,375,145

Figures compiled by EEI are based on number of residential meters connected to central station lines. They do not include farm or private plants nor families served by sub-metering.

The 1940 census shows that the Government figures for *all* wired dwellings exceeds those of EEI by 9.92%. Figures in Column G from 1929 to 1940 are based on figures in Column F plus 9.92%.

During the years 1941–42–43–44 there has been further added 250,000 wired homes each year over and above the increase of 9.92%. It was assumed that during these four years at least 1,000,000 of the vacant wired homes became occupied.

In Column H, Table F, is shown our PAM base which is the product of Column E and Column G. Wired homes, residential meters and families are synonymous terms in our case so if we multiply the number of wired homes (Column G) by the number of persons employed per family (Column E) we arrive at a figure which represents the number of workers living in electrified families.

And now let's pause and consider what use we can make of this PAM base.

Using the Pam Base

In the PAM Base reference line, we have selected the family as the unit of appliance purchaser and have chosen only those families that have electricity immediately available. Consideration has been given to the number of workers in each of these electrified families.

The rate of growth in population and number of families is fairly constant in spite of wars, depressions and other negative conditions. Wired homes will remain wired and increase in number in the next few years to come. There may be fewer residential meters, however, when families double up during hard times as they did in 1932–33 (See "F", Table F). The great unknown quantity in our equation is the number of workers per family. If there is any great lapse of time in war plants

Table E

C—Number of Families

D3—Number of Civilians Employed

E—Number Employed per Family

Year	C Number of Families Millions	D1 Total Civilian Labor Force Millions	D2 Number Civilians Unemployed Millions	D3 Number Civilians Employed Millions	D4 % Civilians Employed	E Number Employed Per Family
1929	29.498	49.3	2.9	46.4	94.1%	1.573
1930	30.052	49.9	5.7	44.2	88.6	1.471
1931	30.531	50.4	9.4	41.0	81.3	1.343
1932	30.977	50.9	13.6	37.3	73.3	1.204
1933	31.414	51.4	13.9	37.5	73.0	1.194
1934	31.874	51.9	12.0	39.9	76.9	1.252
1935	32.361	52.4	11.2	41.2	78.6	1.273
1936	32.834	53.0	9.8	43.2	81.5	1.316
1937	33.315	53.5	8.6	44.9	83.9	1.348
1938	33.859	54.1	11.2	42.9	79.3	1.267
1939	34.428	54.6	10.4	44.2	81.0	1.284
1940	35.014	54.9	8.1	46.8	85.2	1.337
1941	35.650	54.4	5.7	48.7	89.5	1.363
1942	36.357	54.5	2.7	51.8	95.0	1.425
1943	37.020	53.1	1.0	52.1	98.1	1.407
1944	37.457	54.0	.7	53.3	98.7	1.423
1945	37.841	55.3	.9	54.4	98.3	1.437
1946	38.417	57.5	2.0	55.5	96.5	1.445

Table F

E—Number Employed per Family

F—Domestic Customer Meters (EEI)

G—Wired Homes

H—Number Employed Living in Wired Homes

Year	E Number Employed Per Family	F Domestic Customers Meters Millions	G Wired Homes Millions	PAM BASE H Number Employed In Wired Homes Millions
1929	1.573	19.700	21.654	34.062
1930	1.471	20.338	22.355	32.884
1931	1.343	20.443	22.471	30.178
1932	1.204	20.103	22.097	26.605
1933	1.194	19.932	21.909	26.159
1934	1.252	20.312	22.327	27.953
1935	1.273	20.922	22.998	29.276
1936	1.316	21.633	23.779	31.293
1937	1.348	22.461	24.689	33.281
1938	1.267	23.265	25.572	32.400
1939	1.284	24.119	26.511	34.040
1940	1.337	25.118	27.610	36.914
1941	1.366	26.325	29.186	39.868
1942	1.425	27.364	30.579	43.575
1943	1.407	27.858	31.371	44.139
1944	1.423	28.150	31.942	45.453
1945	1.437	28.550	32.382	46.533
1946	1.445	29.150	33.042	47.746

converting to peace-time production, unemployment will mount and our PAM Base will take a nose dive.

About now is a good time to attempt some sort of a check-up with Mr. Livingston's figures. In Chart No. 7, the solid line represents the PAM Base and the dash line is the sum of the values in dollars of all the durable goods included in Tables B and C. This presumably includes all electrical appliances but, unfortunately, it includes some other non-electric things like *all* forms of heating and cooking apparatus, sewing machines, commercial radio apparatus, watches and spring-driven clocks. However, the bulk of it should be electrical appliances. We cannot compare the two curves directly for one shows millions of wired workers and the other shows millions of dollars in sales. We can, however, observe the contour of the two curves and note with satisfaction that a considerable degree of parallelism exists, From 1931 to 1937, in and out of the depression, the curves ran neck and neck. During the dip of 1938, it would appear that electric appliance sales fell off more than normal but by 1941 they had reached their accustomed place beside the PAM Base line. Note that the 1946 terminal of Mr. Livingston's figures—$3,495,000,000—lies just above the 1946 terminal of the PAM Base. The slope of the dash line (1940–41) implies that it would normally have crossed the solid line and then run fairly parallel to it to its 1946 terminus.

Using the PAM Base as a yardstick, we can measure off what the sales of electrical appliances might have been from 1942 to 1946 had there been any electrical appliances to sell. Presumably the unsatisfied demand lingers on and is perhaps sharpened by several years of denial and make-shifts.

I Know Just What You Are Thinking

"Instead of using the *number* employed per family, why didn't he use the *income* per family? Mr. A, head of a family of four, earns $800.00 a month while Mr. B with the same sized group to support, earns $300.00 a month. Mr. A's disposable income is greater than Mr. B's therefore he should spend more for appliances."

And so he does in dollars and cents, but not in number. Mr. A buys a 9 cu. ft. deluxe refrigerator for cash while Mr. B buys a "stripped six" on time. A likes Scotch (when he can get it)—B drinks rum. A drives a new Buick—B drives a Chevrolet. A's toaster is automatic—B's is just plain "turn-over". B's desire for the good things of life is just as keen as A's, but not as expensive.

In the calculations which follow, we are dealing with the *number* of appliances and not their *value*. You are the one to decide what price your appliance will sell for and then you can figure out your share of the business based on the number calculated in the pentup demand and the price class you are aiming at. Figure that all the Mr. As, Bs and Cs will buy at the price which each can afford.

But in order that there may be no hard feelings, let us

construct PAM Base No. 2 in which disposable income is substituted for number of workers per family. Our formula then becomes:

$$\frac{\text{Disposable income of civilian workers}}{\text{Number of families (Column C)}} \times \text{Wired Homes (Column G)} = \text{PAM Base \#2}$$

Disposable income is defined by the Government as: Total income payments to individuals less direct personal taxes. See "Survey of Current Business", U. S. Dept. of Commerce, August 1941, Page 16—May 1942, Page 12—March 1943, Page 20—Sept. 1943, Page 12—"Markets After the War", Page 14, for figures.

Chart No. 8 shows PAM Base No. 1 and No. 2 plotted on the same chart. Look 'em over. PAM Base No. 2 shoots straight up during 1942–43 because of the lack of durable goods to spend it on. PAM Base No. 2 becomes very unstable from 1942 on so that it can hardly be used as a measuring stick but PAM Base No. 1, its twin brother, behaves in a more business-like fashion.

All those in favor of PAM Base No. 1, say "AYE"!

The Mysteries of Linear Correlation

Things are said to be co-related when they have a mutual or reciprocal relation; when the condition of one directly implies the condition of the other.

This is true of our PAM Base and the sale of each of the twenty-one different appliances covered on the following pages. The annual sales of each appliance rises or falls in unison with the rise and fall of the value of the PAM Base. Knowing how the PAM Base is constructed, logic readily admits that this is reasonable to expect.

So we prepare a correlation chart for each appliance consisting of a "scatter" diagram and a line of relationship. Examining Chart No. 9 on RANGES, we find the PAM Base in millions laid off along the bottom, horizontal line which is also known as the X axis. Along the vertical line or Y axis, is shown the sale of RANGES from 0 to 800,000. Now if we move horizontally along the PAM Base to 26.159 (the PAM Base value for 1933) and then vertically to 50,000 (the sales for 1933) we can place a dot at the intersection of these two lines and label it "33". We do the same thing for 1934—horizontally to 27,953 and then vertically to 123,000 and our dot is labeled "34" and so on for the other years, until we have all nine of them represented by a dot and a date. This is the "scatter" diagram. If the dots are not too badly "scattered", it would be possible to draw a line, freehand, through or between the dots which would illustrate the general sales of the appliance as the PAM Base changes in value. It is customary, however, to locate algebraically the position of this line of relationship using the formula: Y (sales at any time) = a + bX (PAM Base at same time). On each chart is shown the formula with the values of a and b inserted. Many thanks are given to Prof. R. Parker Eastwood, School of Business, Columbia University, for this help and guidance in preparing the correlation charts and figures.

So, with our line of relationship pointing the way and our formula at hand, we can compute the sales for any value of the PAM Base which has been developed up to 1946.

At this time a word of caution is in order. The PAM Base is not causative. Its fluctuations are not the cause of similar fluctuations in the sales of the appliance under consideration. Although the related fluctuations of the PAM Base and the sale of various appliances may have been fairly regular over the past nine years, it does not necessarily follow that this same relation will exist at the end of 1946. New techniques, new products, new ways of living may throw the relationship entirely off, so don't be misled but temper the figures of the past and what they indicate by your own judgment of the future.

In no instance have sales gone further back than 1933 for it was felt that a nine year sweep on electrical appliances is sufficient to establish a trend. On some appliances only five or six years of sales data were available and due credit and thanks is given to "Electrical Merchandising" for all past sales figures and 1944 saturation estimates.

As a quick gauge on the Projected Sales the Ratio of the PAM Base value to the number of units sold is given for each year. By conparing this Ratio from year to year you will be able to judge if the Projected Sales are conservative or too optimistic.

Summing Up

In Charts No. 9 to 29, we have been considering the Projected Sales, in number, of 21 different appliances. Using the average retail price of each appliance during the years 1940–41–42, we can figure how much all the foregoing added together will amount to in dollars and cents—what the size of the future appliance market will be, price-wise.

Given below are the figures at RETAIL PRICES for PAST SALES from 1933 to 1941 and PROJECTED SALES from 1942 to 1946, year by year.

COLUMN 1	COLUMN 2	COLUMN 3	COLUMN 4	COLUMN 5
Year	PAM Base Millions	Total Retail Sales Millions	Retail Sales Per Unit *PAM Base* (or per worker living in a wired home)	Increase or Decrease Over previous year
	PAST SALES			
1933.....	26.159	$547.310	$20.92	.....
1934.....	27.953	686.650	24.56	Increase $3.64
1935.....	29.276	823.282	28.12	Increase 3.56
1936.....	31.293	1072.958	34.29	Increase 6.17
1937.....	33.281	1210.665	36.38	Increase 2.09
1938.....	32.400	748.689	23.11	Decrease 13.27
1939.....	34.040	1012.308	29.74	Increase 6.63
1940.....	36.914	1122.522	30.41	Increase .67
1941.....	39.868	1481.278	37.15	Increase 6.74
	PROJECTED SALES			
1942.....	43.575	1773.310	40.70	Increase 3.55
1943.....	44.139	1816.013	41.14	Increase .44
1944.....	45.453	1915.647	42.15	Increase 1.01
1945.....	46.533	1997.578	42.93	Increase .78
1946.....	47.746	2089.484	43.76	Increase .83

Talking in terms of billions of dollars makes any jobber sort of dizzy, so I have divided the Total Sales (Col. 3) by the PAM Base (Col. 2) thus giving the sales per wired worker in Column 4 and finally, in Column 5, the increase or decrease from year to year is shown.

We start with $20.92 per worker living in a wired home in 1933 which was the first year of upturn after the depression of 1929–32. For 1934 and 1935 the

increase over the previous year was about the same and then, in 1936, the increase almost doubled. The much smaller increase of $2.09 in 1937 may have been due to the over-large increase of 1936 or it may have been the forerunner of the slump that was to come in 1938.

Every wholesaler of electrical appliances will remember the 1938 toboggan when the bottom fell out of the appliance market. The volume that year dropped back to slightly below the 1934 level and practically all our gain over 1933 was lost.

During 1939 the climb back up the ladder of prosperity had started with an increase of $6.63 and slightly more than this in 1941. Just why it dropped off to only 67¢ in 1940 is a mystery. Note that the figure for the peak year, 1941, is only 77¢ over the 1937 volume.

Coming now to the Projected Sales, the figures show that there is an increase of $3.55 in 1942 over 1941 and that the total increase in the next four years (from 1943 to 1946) is only $3.06. Looking at the 1946 figure of $43.76, we note that it is more than double that of 1933 but it shows an increase of only 43.9% over the 1940 figure of $30.41.

Checking the figures from another angle, we find that in Table A the Total Durable Goods Sales as set forth in "Markets After the War", show an increase in 1946 of 86.4% over the 1940 figures. If we take our 1946 Projected Sales of $2,089,000,000, we find that the increase over the 1940 figure is 86.1%. The closeness of these two figures percentage-wise is significant.

Coming back to our Projected Sales, however, you again must be the judge as to whether the amount of increase shown is conservative or not. Please remember that our Projected Sales were computed in number of appliances, not value, and that the value given to them for consideration was the average of the 1940–41–42 retail prices. Remember also that such things as television home freezing cabinets and other new appliances are not included in the figures. These are all plus.

The Pent-Up Demand

Up to now we have been speaking of Past Sales (historical) and Projected Sales (future). Since a sale is only made when the merchandise is delivered and billed, we should really refer to the Projected Sales as the Potential Demand or Pent-Up Demand. In other words, they are sales that are actually waiting to be consummated when the merchandise is available.

The manufacture of appliances ceased in the fall of 1941 and the spring of 1942 and, since that time, the Potential Demand or Pent-Up Demand has been steadily mounting. This projection and study of the Pent-Up Demand has been prepared as a part of the Post War Planning Committees' report on appliances. Its purpose is to provide a standard method of calculating the Pent-Up Demand as it will exist on December 31, 1946, based on past history and a mathematical projection of the future, using the techniques of which analysts approve.

The Post War Planning Committee believes these projections of the Pent-Up Demand of each appliance, shown by number of appliances, can be very helpful to every appliance distributor. While the projections are national in scope, the methods used can be applied to any local area by states, by counties, or even by cities and towns. Statistics are available which will permit any one to calculate the theoretical Pent-Up Demand by number of appliances for his individual trading area.

After you have calculated the Pent-Up Demand for your area as of December 31, 1946, you can then reduce it by any amount you consider proper to adjust it for local and peculiar conditions. Also, please remember, that regardless of the amount of the Pent-Up Demand, even reduced to conform to your local conditions, it will not be a measure of actual sales for the first, second, third or perhaps even future years following the resumption of production.

As production of appliances is resumed, the Pent-Up Demand will be converted into actual sales and obviously, it will take considerable time to accomplish this. Since a portion of the Pent-Up Demand will be added to the normal demand each year, it would appear that we should have a tremendous market for several years to come after the resumption of production. Only your judgment and the ability of all the factories to produce will give you the measure of the estimated annual sales nationally and in your own area.

The Final Warning

About now is a good time to sound another and final note of warning.

Our Projected Sales 1942 to 1946 are based on historical sales data from 1933 to 1941. How correct are these data? We are assured that they are the best obtainable but how good is the best? You will readily agree that if they are not sound and factual that we have a very serious rift in the lute and we may be classed as an Expert, i.e., a man who avoids the small errors while he sweeps on to the grand fallacy.

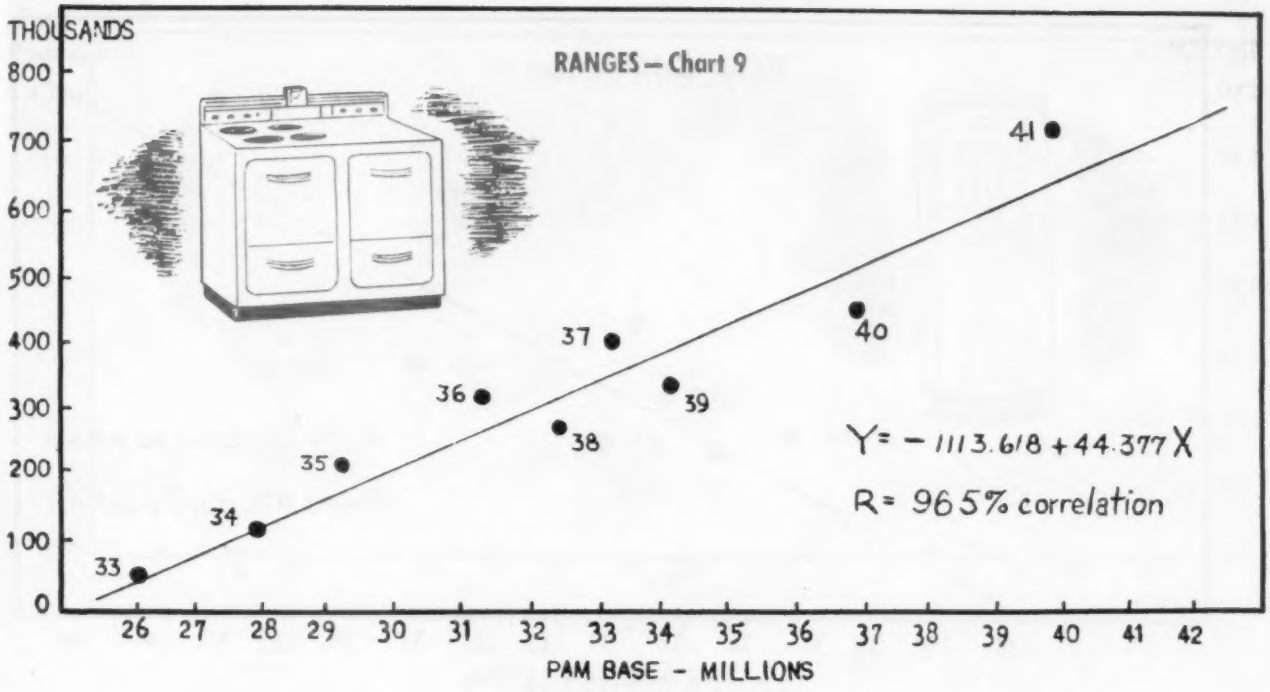
Pick out the appliances with which you are personally familiar and consider carefully the volume of the Projected Sales as compared to past performance. Consider too the estimated saturation point which is given for a number of them. You should scratch your head and ponder if the figures under consideration are reasonable based on your experience in the business and, above all, don't hestitate to be just as pessimistic as you would like to feel optomistic.

The $64 Question

And now you are going to ask, "How do your Projected Sales for the year 1946 compare with those shown in 'Markets After the War'?".

An exact comparison is not possible because we have computed the Projected Sales of 21 appliances by quantity and then figured their value at an average of the 1940–41–42 retail prices, while in "Markets After the War", we have five groups of durable goods, (Tables B and C,) which include all electrical appliances and some other things as well. How these five groups were priced is not clear—it may have been manufacturer's prices or jobber's prices or a mixture of the two but it certainly was not at full retail price. So neither from a merchandise angle nor price-wise are the end figures of the year 1946 directly comparable.

But during the nine historical years (1933–1941) a certain relationship must have existed between the two



RANGES

PAST SALES

Year	PAM Base Millions	Number Sold Thousands	Ratio	Price Each	Retail Value Millions
1933	26.159	50.000	523:1	$142.00	$7.100
1934	27.953	123.000	227:1	130.00	15.990
1935	29.276	215.000	136:1	127.00	27.305
1936	31.293	318 000	98:1	130.23	41.413
1937	33.281	405 000	82:1	134.00	54.270
1938	32.400	275.000	118:1	145.00	39.875
1939	34.040	335.000	102:1	147.00	49.245
1940	36.914	450.000	82.1	139.50	62.775
1941	39.868	728.000	55:1	142.00	103.376
1942		225.000			

PROJECTED SALES

1942	43.575	820.110	53:1	*140.75	115.430
1943	44.139	845.138	52:1	140.75	118.953
1944	45.453	903.450	50:1	140.75	127.161
1945	46.533	951.377	49:1	140.75	133.906
1946	47.746	1005.206	47:1	140.75	141.483
Total		4525.281			636.933
1942 Sales		225.000		142.00	31.950
Net		4300.281			$604.983

Potential Demand January 1, 1947 less any production.
*Average Price per Unit 1940–41.

U. S. Census report gives these figures on cooking facilities, (1940):

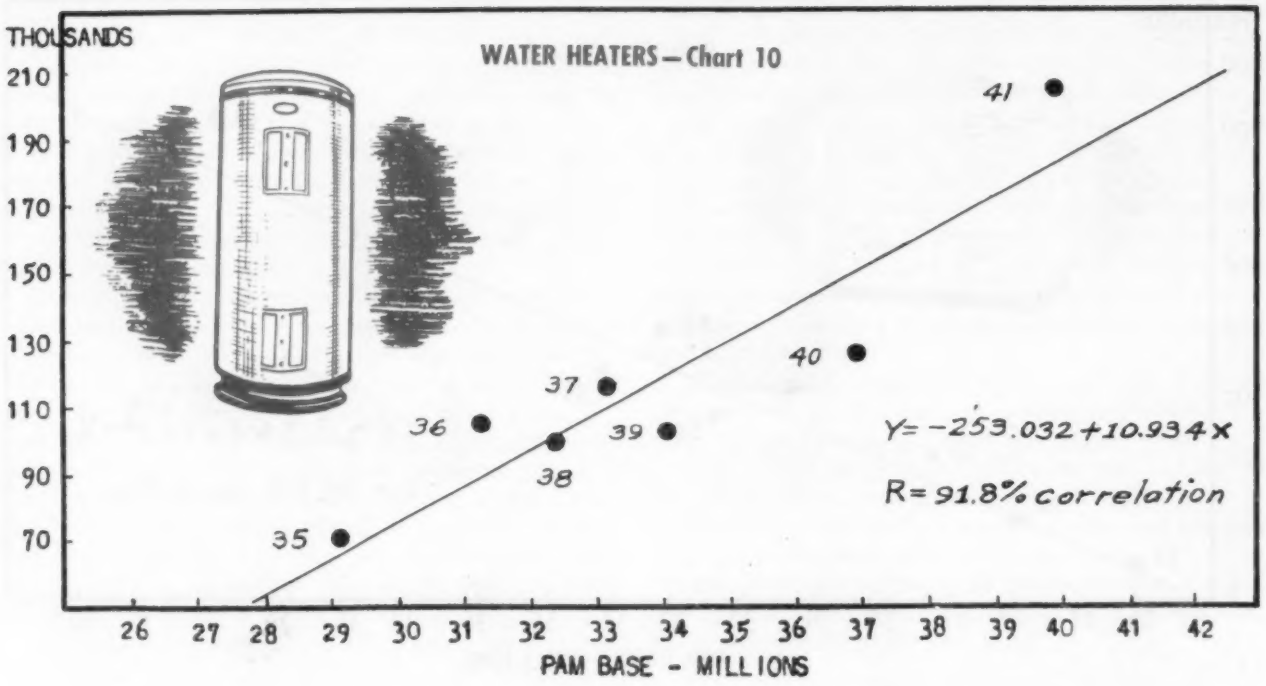
		% Total			% Total
Occupied Dwelling	34,854,532	100%	Electricity	1,882,145	5.4%
Coal or Coke	4,008,271	11.5	Kerosene or Gasoline	3,380,890	9.7
Wood	8,260,524	23.7	Other	174,273	0.5
Gas	17,009,012	48.8	None	139,417	0.4

Estimated ranges installed January 1, 1944 3,567,000.
31,371,000 wired homes equals 11.4% saturation.

groups of yearly sales and to study this relationship, a final correlation chart has been prepared.

Along the horizontal or X axis at the bottom, is shown the scale that applies to the yearly sales of the 21 appliances at full retail value. The vertical or Y axis is scaled to take in the yearly sales of the five groups of durable goods from "Markets After the War". The nine years are then spotted with dots following the procedure described in the section on "Linear Correlation" and the line of relationship calculated and drawn. It is satisfying to note that the dots hug the line closely, indicating close relationship and that the degree of correlation is high—95.9%.

(Continued on page 80)



WATER HEATERS

PAST SALES

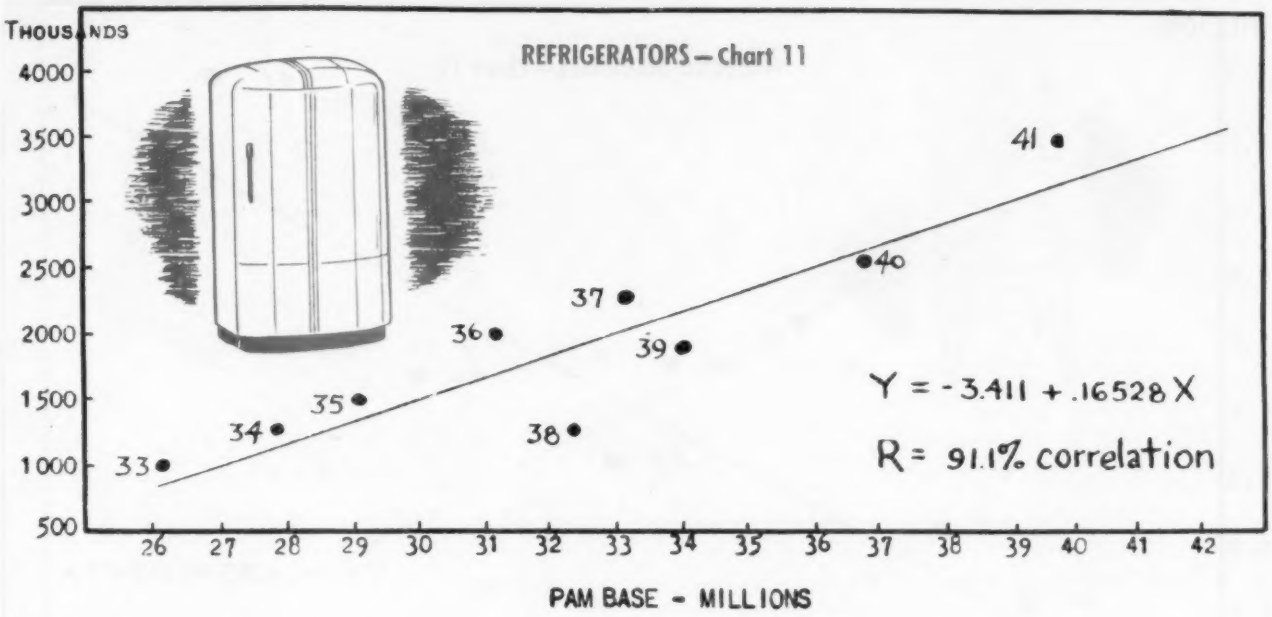
Year	PAM Base	Number Sold Thousands	Ratio	Price Each	Retail Value Millions
1935	29.276	70.000	418:1	$77.00	$5.390
1936	31.293	104.000	301:1	73.17	7.610
1937	33.281	115.000	289:1	82.61	9.500
1938	32.400	99.650	325:1	91.72	9.138
1939	34.040	102.270	333:1	88.20	9.024
1940	36.914	125.000	295:1	81.04	10.125
1941	39.868	205.000	194:1	83.02	17.015
1942		88.000			

PROJECTED SALES

1942	43.575	223.417	195:1	*82.03	18.327
1943	44.139	229.584	192:1	82.03	18.833
1944	45.453	243.951	186:1	82.03	20.011
1945	46.533	255.760	182:1	82.03	20.980
1946	47.746	269.023	177:1	82.03	22.068
Total		1221.735			$100.219
1942 Sales		88.000		83.02	7.306
Net		1133.735			92.913

Potential Demand January 1, 1947 less any production.
*Average unit price 1940–41.

Estimated water heaters installed January 1, 1944—1,084,400.
31,371,000 wired homes equals 3.5% saturation.



REFRIGERATORS

PAST SALES

Year	PAM Base Millions	Number Sold Millions	Ratio	Price Each	Retail Value Millions
1933	26.159	1.016	26:1	$170.00	$172.720
1934	27.953	1.283	22:1	172.00	220.676
1935	29.276	1.568	19:1	162.00	253.648
1936	31.293	1.996	16:1	164.00	327.344
1937	33.281	2.310	14:1	171.00	395.010
1938	32.400	1.254	26:1	172.00	215.688
1939	34.040	1.900	18:1	169.00	321.100
1940	36.914	2.600	14:1	152.00	395.200
1941	39.868	3.500	11:1	155.00	542.500
1942		.520		155.00	80.600

PROJECTED SALES

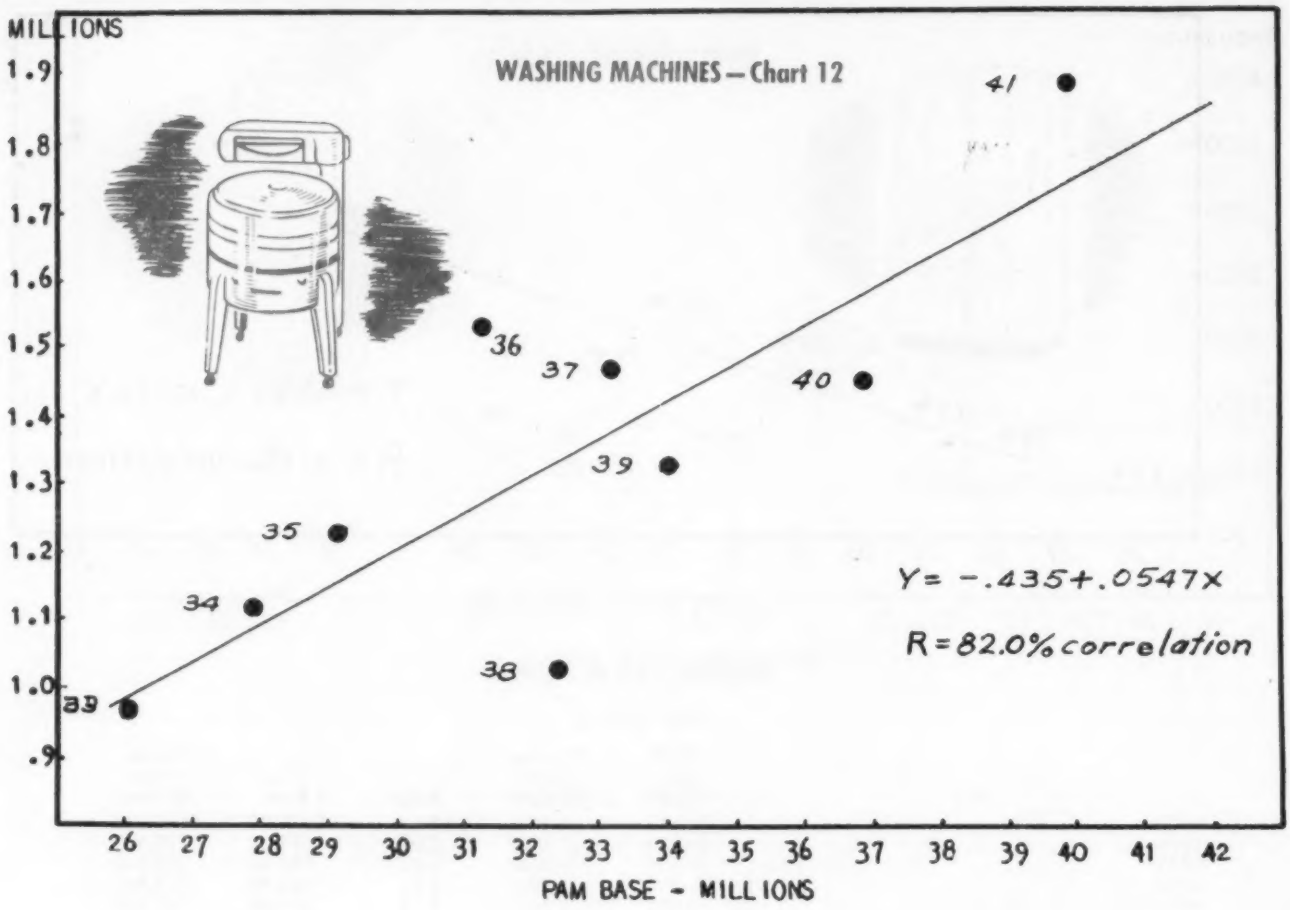
1942	43.575	3.791	11:1	*154.00	583.814
1943	44.139	3.884	11:1	154.00	598.136
1944	45.453	4.101	11:1	154.00	631.554
1945	46.533	4.280	11:1	154.00	659.120
1946	47.746	4.480	11:1	154.00	689.920
Total		20.536			3162.544
1942 Sales		.520		155.00	80.600
Net		20.016			3081.944

Potential Demand January 1, 1947 less any production.
*Average price per unit 1940–41–42.

The U. S. Census report of 1940 gives these figures on refrigeration:

Occupied dwellings	34,854,532	100%
Mechanical	15,370,849	44.1
Ice	9,445,578	27.1
Other	487,963	1.4
None	9,550,142	27.4

Estimated refrigerators installed January 1, 1944—19,864,000.
31,371,000 wired homes equals 63.6% saturation.



WASHING MACHINES

PAST SALES

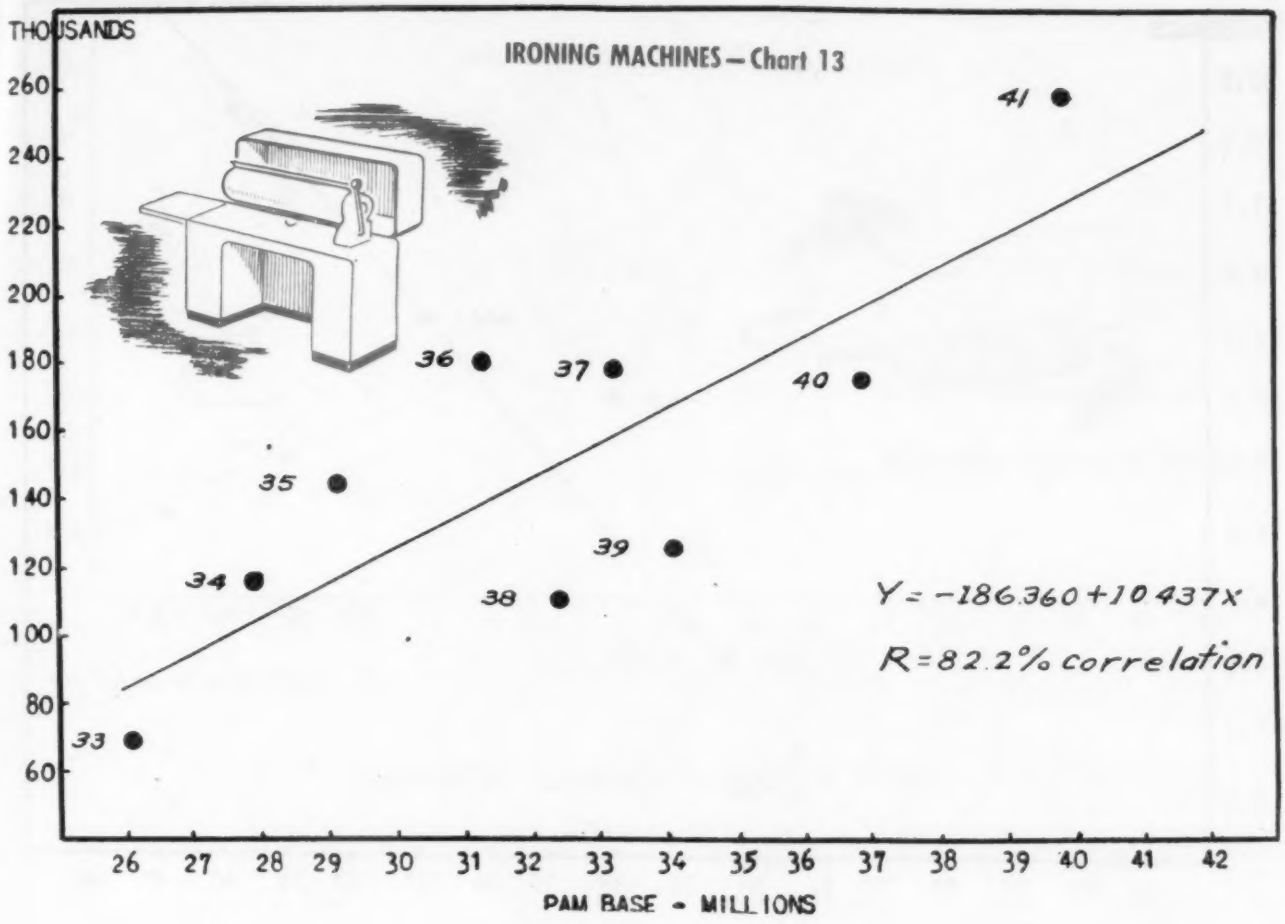
Year	PAM Base	Number Sold Millions	Ratio	Price Each	Retail Value Millions
1933	26.159	.967	27:1	$62.00	$59.935
1934	27.953	1.121	25:1	65.00	72.874
1935	29.276	1.229	24:1	65.05	79.932
1936	31.293	1.529	20:1	66.04	100.948
1937	33.281	1.465	23:1	72.24	105.861
1938	32.400	1.031	31:1	72.14	74.402
1939	34.040	1.329	26:1	68.72	91.355
1940	36.914	1.455	25:1	71.82	104.486
1941	39.868	1.892	21:1	78.50	148.556
1942		.449		90.81	40.728

PROJECTED SALES

1942	43.575	1.949	22:1	*80.38	156.661
1943	44.139	1.979	22:1	80.38	159.072
1944	45.453	2.051	22:1	80.38	164.859
1945	46.533	2.110	22:1	80.38	169.602
1946	47.746	2.177	22:1	80.38	174.987
Total		10.266			825.181
1942 Sales		.449		90.81	40.774
Net		9.817			784.407

Potential demand January 1, 1947 less any production.
*Average price per unit 1940-41-42.

Estimated washers installed January 1, 1944, 17,338,000.
31,371,000 wired homes equals 55.3% of saturation.



IRONING MACHINES

PAST SALES

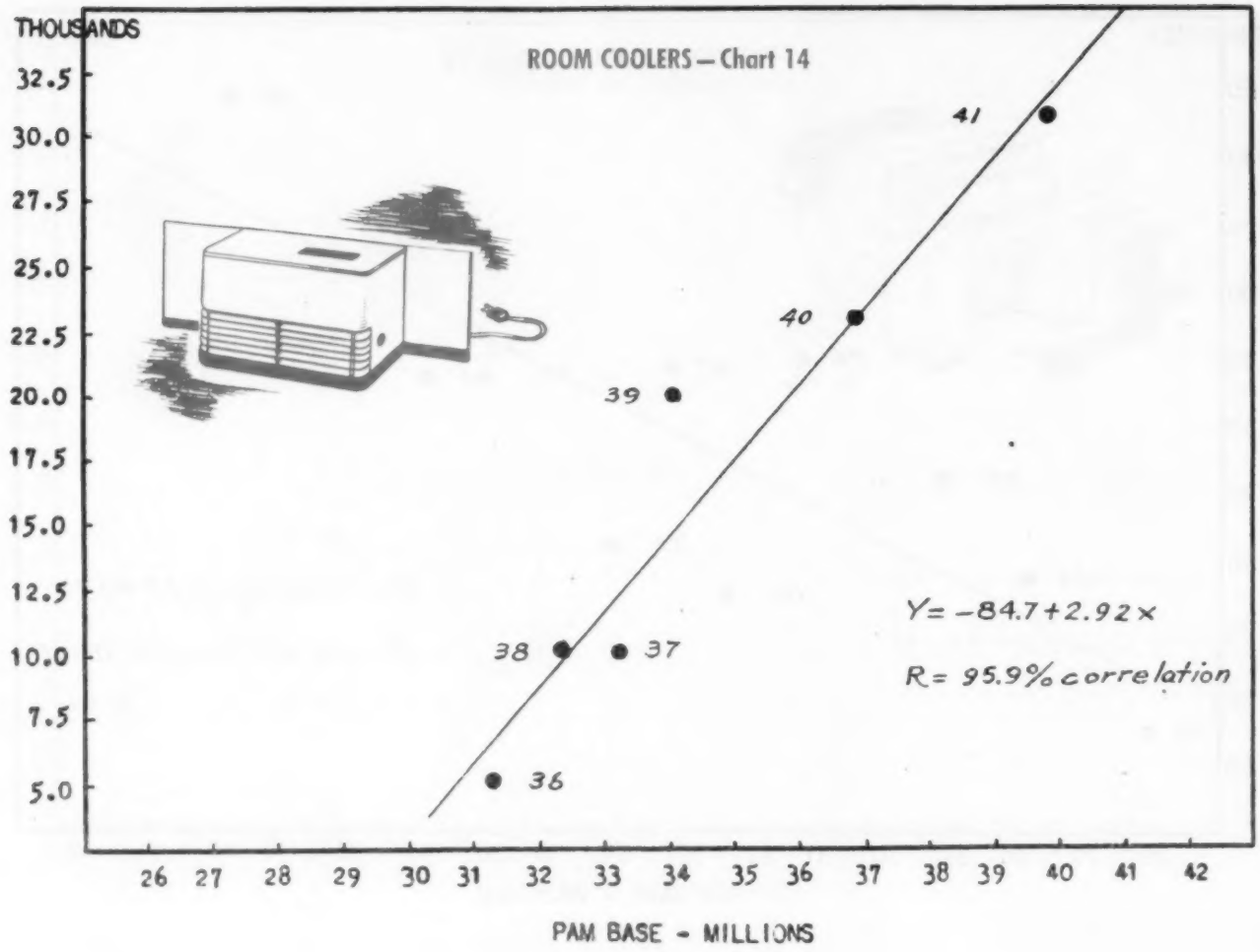
Year	PAM Base	Number Sold Thousands	Ratio	Price Each	Retail Value Millions
1933	26.159	69.991	374:1	$49.16	$3.411
1934	27.953	116.069	241:1	53.38	6.196
1935	29.276	143.856	204:1	54.64	7.860
1936	31.293	180.281	174:1	57.60	10.384
1937	33.281	178.858	186:1	70.00	12.520
1938	32.400	110.540	293:1	80.20	8.865
1939	34.040	127.093	268:1	68.46	8.701
1940	36.914	175.466	210:1	58.24	10.219
1941	39.868	259.668	154:1	55.80	14.489
1942		66.090		73.40	4.851

PROJECTED SALES

1942	43.575	268.432	162:1	*62.48	16.772
1943	44.139	274.319	161:1	62.48	17.139
1944	45.453	288.033	158:1	62.48	17.996
1945	46.533	299.305	155:1	62.48	18.701
1946	47.746	311.965	153:1	62.48	19.492
Total		1442.054			90.100
1942 Sales		66.090		73.40	4.851
Net		1375.964			85.249

Potential demand January 1, 1947 less any production.
*Average price per unit 1940–41–42.

Estimated ironers installed January 1, 1944—1,938,000.
31,371,000 wired homes equals 6.2% saturation.



ROOM COOLERS

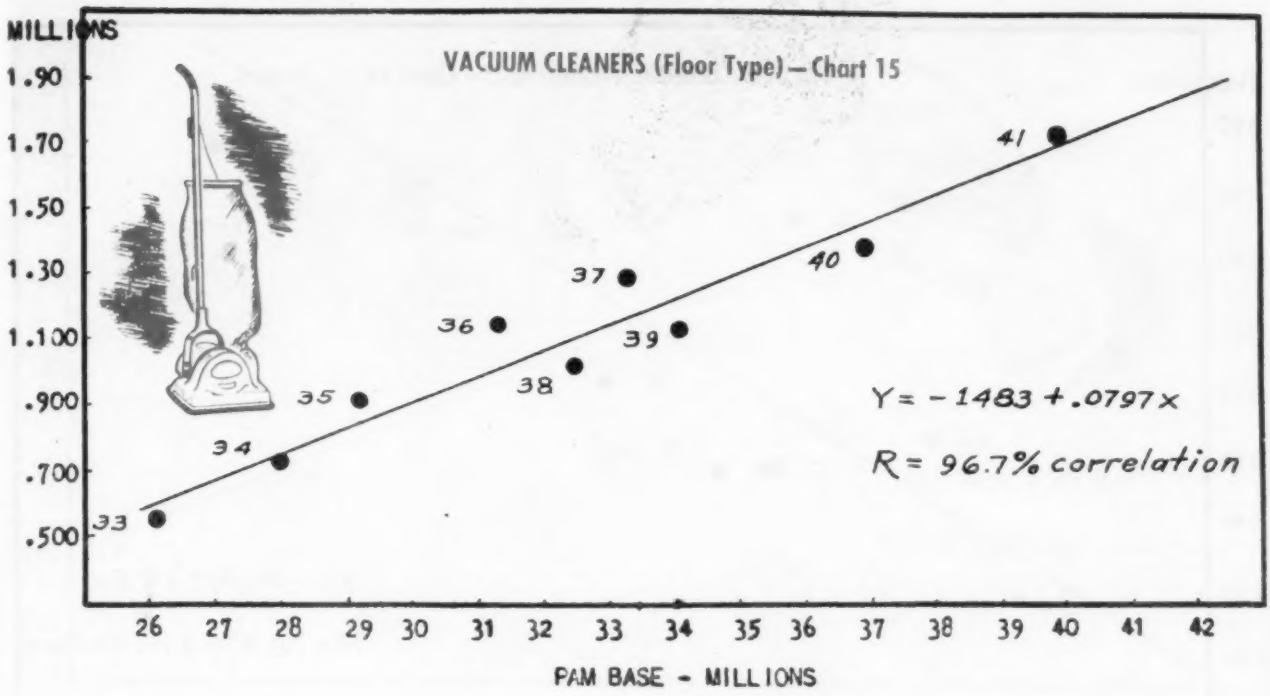
PAST SALES

Year	PAM Base	Number Sold Thousands	Ratio	Price Each	Retail Value Millions
1936	31.293	5.000	6259:1	$460.00	$2.300
1937	33.281	10.000	3328:1	460.00	4.600
1938	32.400	10.125	3200:1	409.87	4.152
1939	34.040	20.000	1702:1	260.00	5.200
1940	36.914	23.000	1605:1	224.78	5.175
1941	39.868	30.750	1297:1		
1942					

PROJECTED SALES

1942	43.575	42.539	1024:1	*224.78	9.562
1943	44.139	44.186	999:1	224.78	9.932
1944	45.453	48.023	946:1	224.78	10.795
1945	46.533	51.176	909:1	224.78	11.503
1946	47.746	54.718	873:1	224.78	12.300
Total 1942 Sales		240.642			54.092
Net		240.642			54.092

Potential demand January 1, 1947 less any production
*Average price per unit 1940.



VACUUM CLEANERS (FLOOR TYPE)

PAST SALES

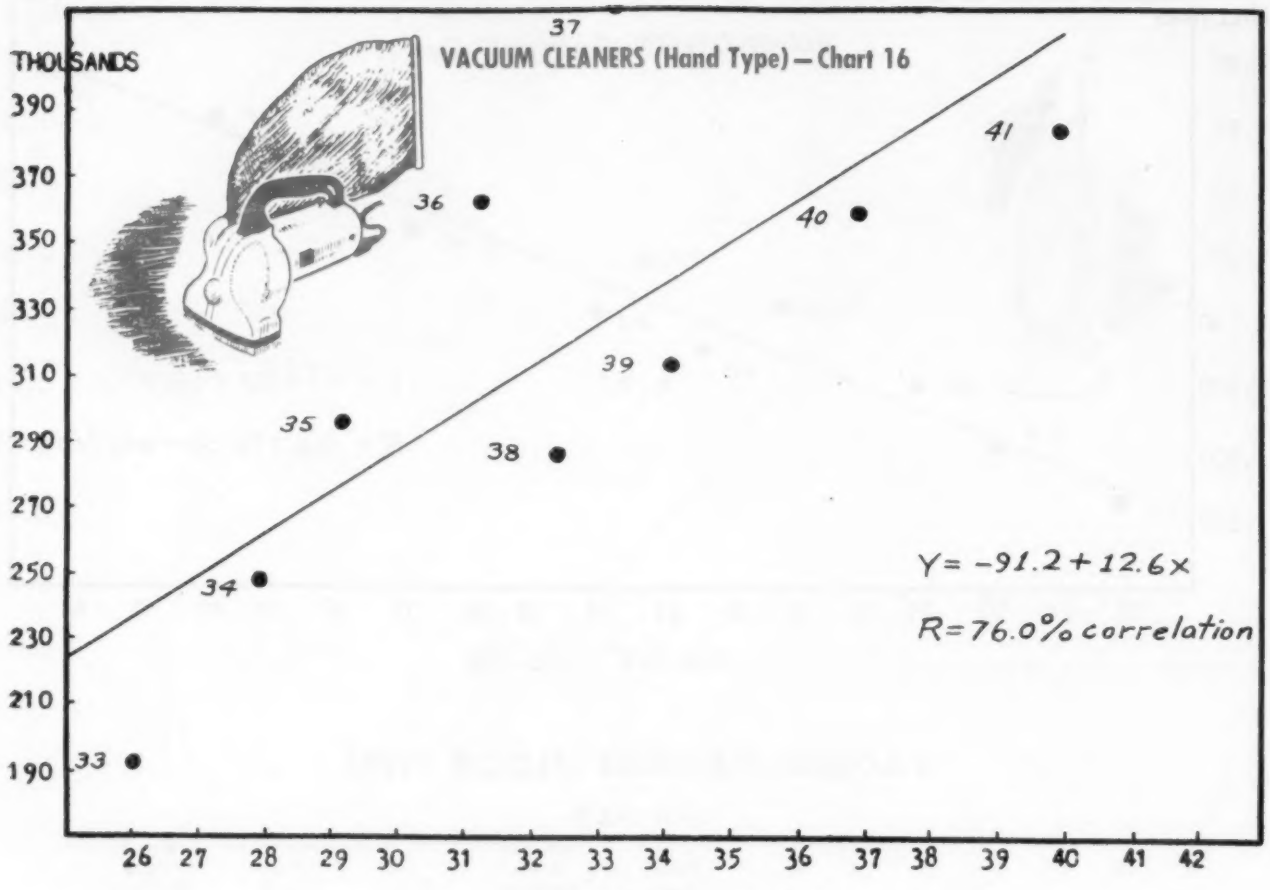
Year	PAM Base	Number Sold Millions	Ratio	Price Each	Retail Value Millions
1933	26.159	.548	48:1	$50.00	$27.377
1934	27.953	.722	39:1	55.00	39.720
1935	29.276	.906	32:1	55.00	50.440
1936	31.293	1.149	27:1	54.25	62.360
1937	33.281	1.285	26:1	54.29	69.777
1938	32.400	1.010	32:1	57.60	58.189
1939	34.040	1.124	30:1	56.82	63.876
1940	36.914	1.385	27:1	54.75	75.820
1941	39.868	1.734	23:1	54.00	93.656
1942		.600		54.00	32.400

PROJECTED SALES

1942	43.575	1.990	22:1	*54.25	107.958
1943	44.139	2.035	22:1	54.25	110.399
1944	45.453	2.140	21:1	54.25	116.095
1945	46.533	2.226	21:1	54.25	120.761
1946	47.746	2.322	21:1	54.25	125.969
Total		10.713			581.182
1942 Sales		.600		54.00	32.400
Net		10.113			548.782

Potential demand January 1, 1947 less any production.
*Average price per unit 1940–41–42.

Estimated vacuum cleaners in use January 1, 1944—13,707,000.
31,371,000 wired homes equals 43.7% saturation.



VACUUM CLEANERS (HAND TYPE)

PAST SALES

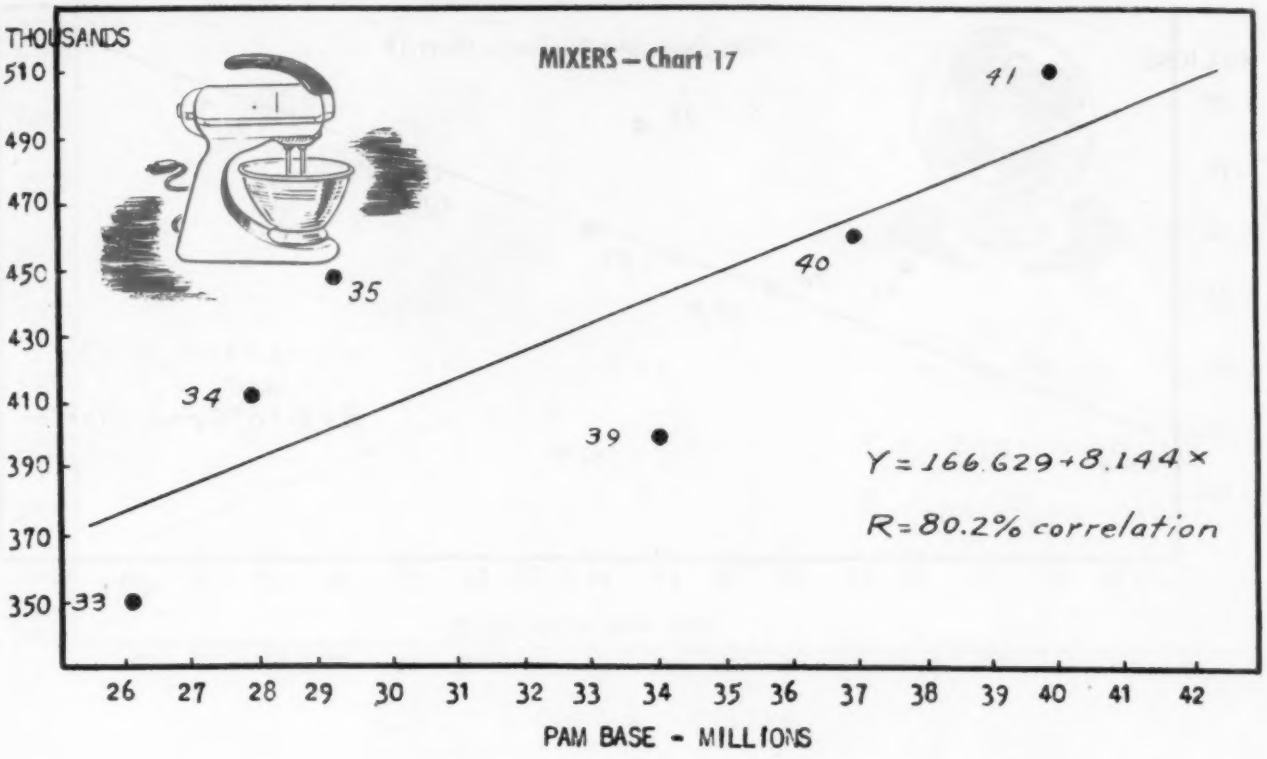
Year	PAM Base	Number Sold Thousands	Ratio	Price Each	Retail Value Millions
1933	26.159	191.818	136:1	$15.08	$2.895
1934	27.953	246.009	114:1	15.58	3.835
1935	29.276	294.891	99:1	14.48	4.270
1936	31.293	361.461	87:1	14.10	5.097
1937	33.281	421.121	79:1	13.77	5.798
1938	32.400	285.411	114:1	14.78	4.369
1939	34.040	312.035	109:1	15.87	4.939
1940	36.914	358.604	103:1	14.99	5.375
1941	39.868	383.481	104:1	14.61	5.603
1942		85.000		14.61	1.242

PROJECTED SALES

1942	43.575	457.845	95:1	*14.74	6.749
1943	44.139	464.951	95:1	14.74	6.853
1944	45.453	481.508	94:1	14.74	7.097
1945	46.533	495.116	94:1	14.74	7.298
1946	47.746	510.400	94:1	14.74	7.523
Total		2409.820			35.520
1942 Sales		85.000		14.61	1.242
Net		2324.820			34.278

Potential demand January 1, 1947 less any production.
*Average price per unit 1940-41-42

Estimated vacuum cleaners in use January 1, 1944—3,072,000.
31,731,000 wired homes equals 9.7% saturation.



MIXERS

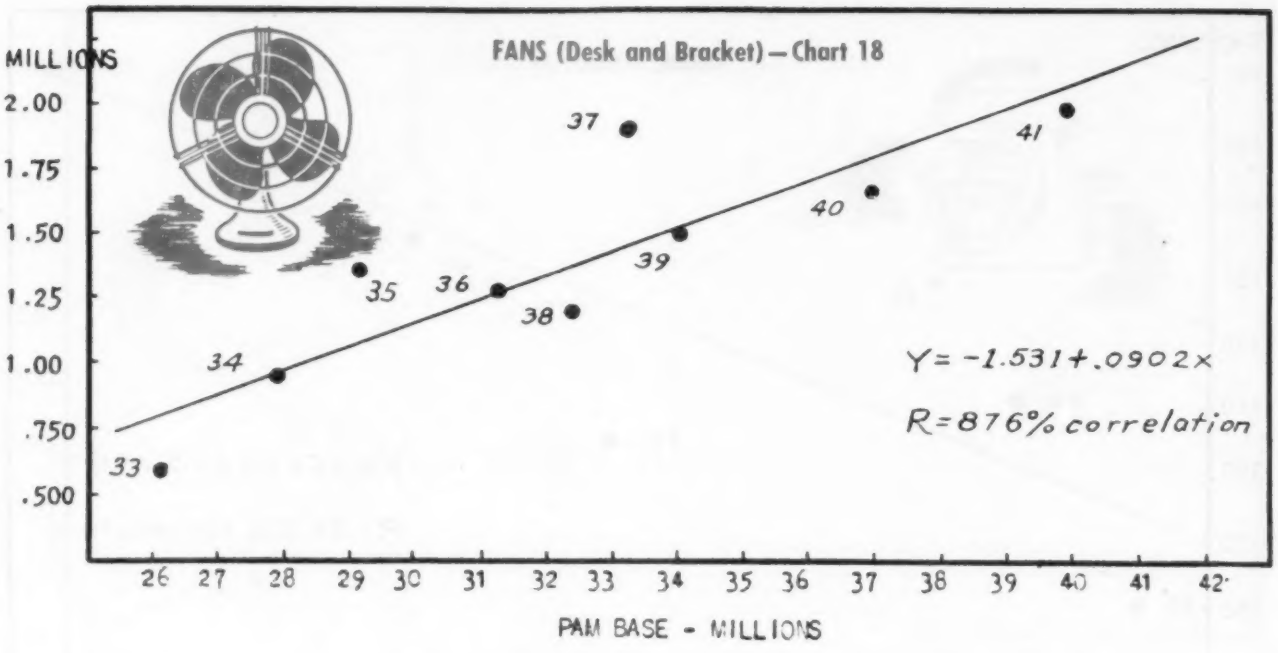
PAST SALES

Year	PAM Base	Number Sold Thousands	Ratio	Price Each	Retail Value Millions
1933	26.159	350.000	75:1	$17.48	$6.125
1934	27.953	413.753	68:1	17.16	7.100
1935	29.276	447.748	65:1	18.87	8.449
1936	31.293				
1937	33.281				
1938	32.400				
1939	34.040	400.000	85:1	17.50	7.000
1940	36.914	460.000	80:1	22.00	10.120
1941	39.868	510.000	78:1	22.00	11.220
1942		306.000		21.99	6.732

PROJECTED SALES

1942	43.575	521.504	84:1	*22.00	11.473
1943	44.139	526.097	84:1	22.00	11.574
1944	45.453	536.798	85:1	22.00	11.810
1945	46.533	545.594	85:1	22.00	12.003
1946	47.746	555.472	86:1	22.00	12.220
Total		2685.465			59.080
1942 Sales		306.000		21.99	6.729
Net		2379.465			52.351

Potential demand January 1, 1947 less any production.
*Average price per unit 1940–41–42



FANS (DESK AND BRACKET)

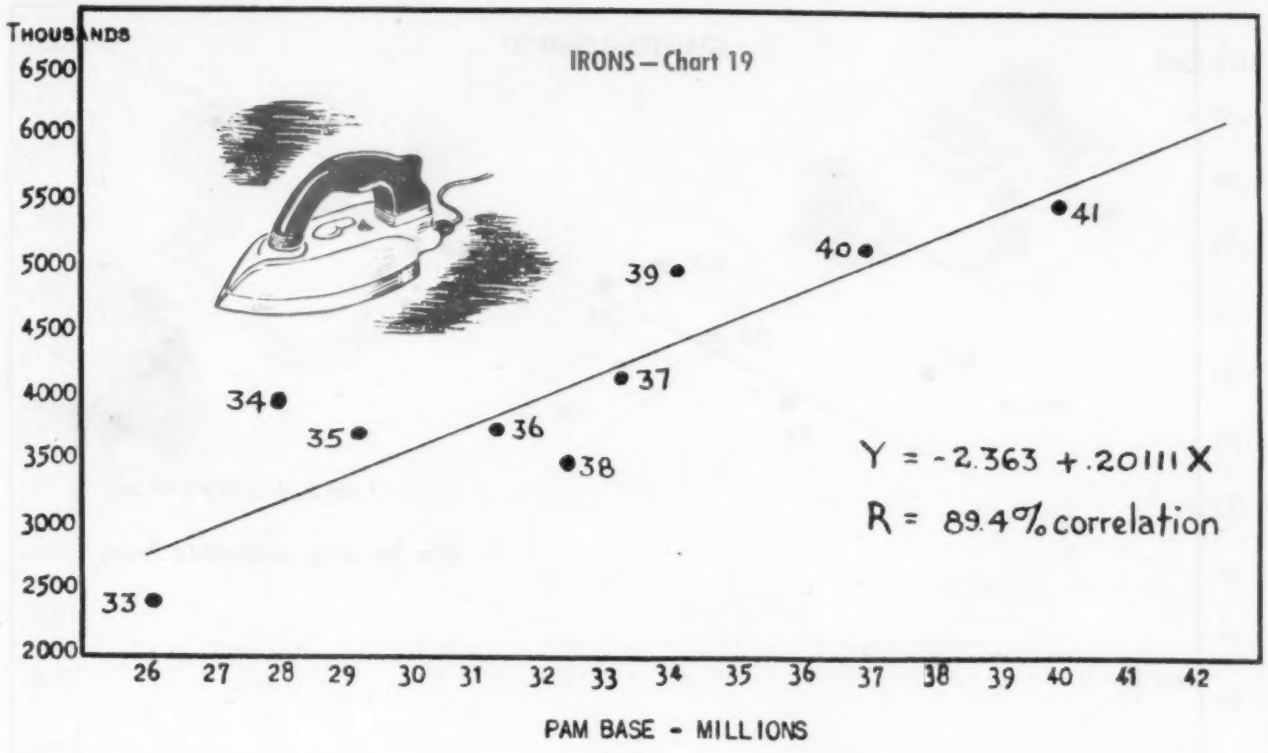
PAST SALES

Year	PAM Base	Number Sold Millions	Ratio	Price Each	Retail Value Millions
1933	26.159	.599	44:1	$5.73	$3.434
1934	27.953	.958	29:1	5.73	5.495
1935	29.276	1.363	21:1	7.12	9.701
1936	31.293	1.280	24:1	7.60	9.725
1937	33.281	1.914	17:1	7.10	13.588
1938	32.400	1.207	27:1	7.05	8.508
1939	34.040	1.302	23:1	7.04	10.572
1940	36.914	1.682	22:1	6.34	10.663
1941	39.868	1.985	20:1	7.35	14.587
1942		1.887		7.87	14.847

PROJECTED SALES

1942	43.575	2.399	18:1	*7.19	17.249
1943	44.139	2.450	18:1	7.19	17.616
1944	45.453	2.569	18:1	7.19	18.471
1945	46.533	2.666	17:1	7.19	19.169
1946	47.746	2.776	17:1	7.19	19.959
Total		12.860			92.464
1942 Sales		1.887		7.87	14.851
Net		10.973			77.613

Potential demand January 1, 1947 less any production.
*Average unit price 1940–41–42



IRONS

PAST SALES

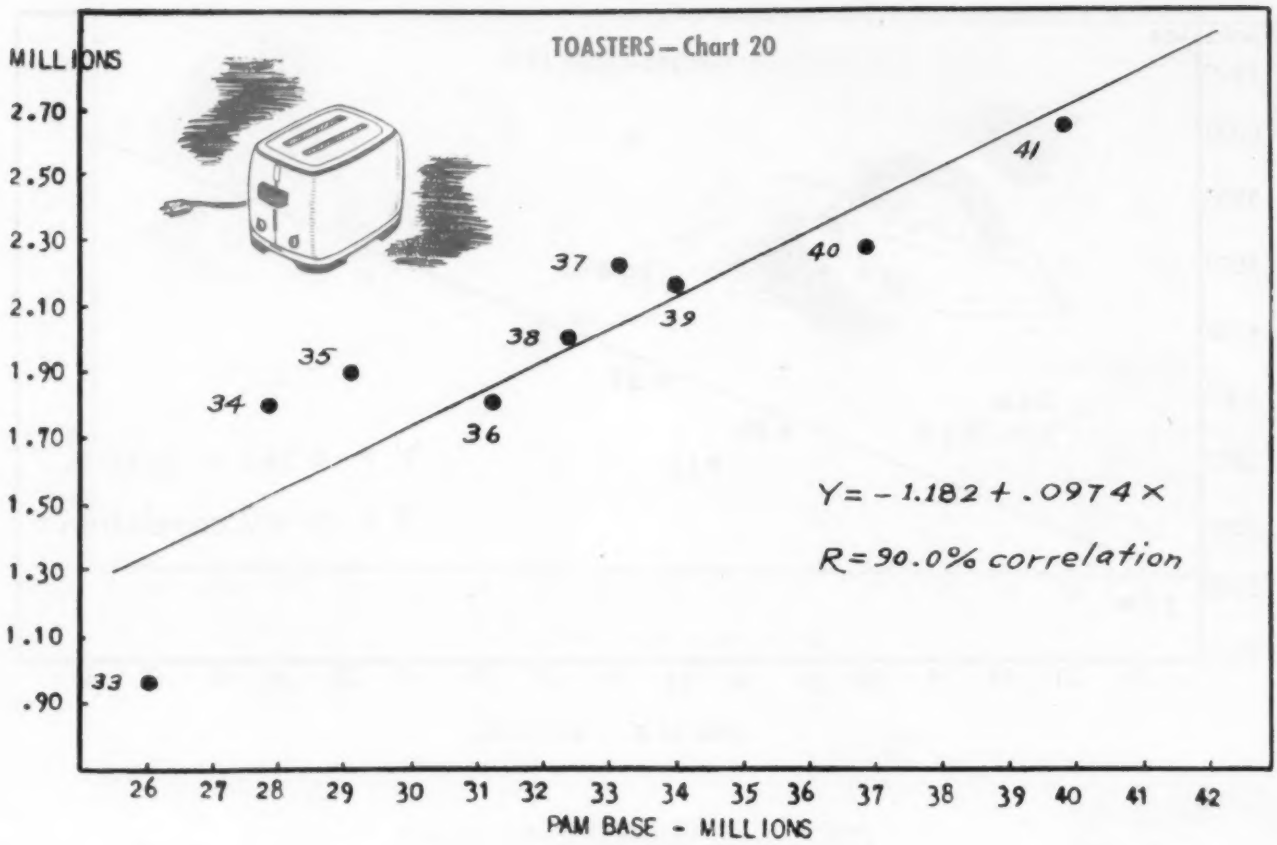
Year	PAM Base	Number Sold Millions	Ratio	Price Each	Retail Value Millions
1933	26.159	2.430	11:1	$3.53	$8.594
1934	27.953	3.968	7:1	3.31	13.161
1935	29.276	3.719	8:1	4.00	14.895
1936	31.293	3.766	8:1	4.42	16.670
1937	33.281	4.157	8:1	3.87	16.087
1938	32.400	3.505	9:2	3.92	13.747
1939	34.040	4.993	7:1	3.59	17.958
1940	36.914	5.171	7:1	3.64	18.854
1941	39.868	5.585	7:1	3.78	21.100
1942		1.145		4.34	4.973

PROJECTED SALES

1942	43.575	6.400	7:1	*3.92	25.088
1943	44.139	6.514	7:1	3.92	25.535
1944	45.453	6.778	7:1	3.92	26.570
1945	46.533	6.995	7:1	3.92	27.420
1946	47.746	7.239	7:1	3.92	28.377
Total		33.926		3.92	132.990
1942 Sales		1.145		4.34	4.969
Net		32.781			128.021

Potential demand January 1, 1947 less any production.
*Average price per unit 1940–41–42.

Estimated irons in use January 1, 1944—25,965,000.
31,373,000 wired homes equals 82.7% saturation.



TOASTERS

PAST SALES

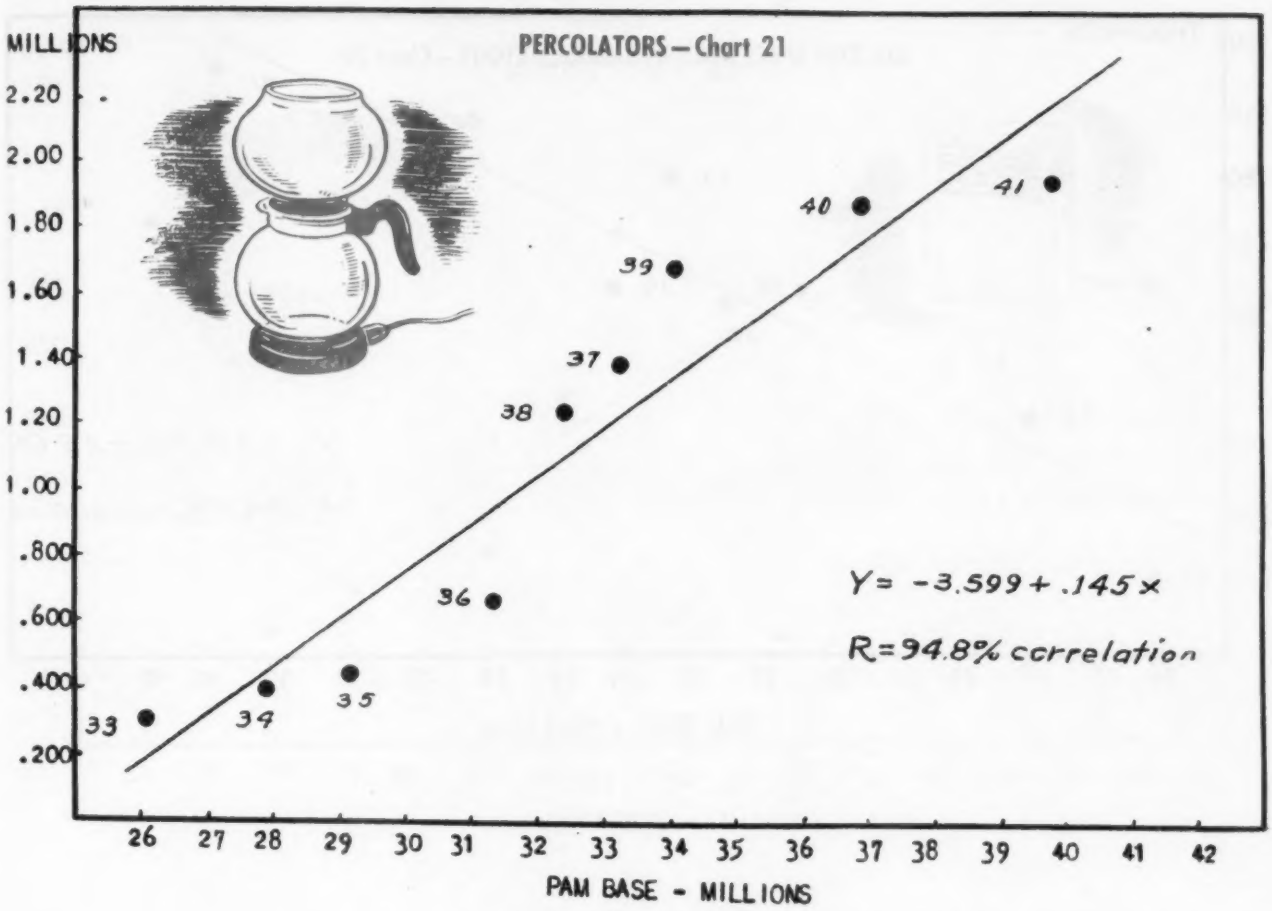
Year	PAM Base	Number Sold Millions	Ratio	Price Each	Retail Value Millions
1933	26.159	.953	27:1	$6.00	$5.715
1934	27.953	1.784	16:1	4.90	8.740
1935	29.276	1.886	16:1	5.19	9.788
1936	31.293	1.801	17:1	5.81	10.459
1937	33.281	2.223	15:1	5.69	12.650
1938	32.400	1.996	16:1	5.49	10.953
1939	34.040	2.166	16:1	6.86	14.861
1940	36.914	2.272	16:2	6.60	15.001
1941	39.868	2.641	15:1	6.79	17.946
1942					

PROJECTED SALES

1942	43.575	3.062	14:1	*6.70	20.515
1943	44.139	3.117	14:1	6.70	20.884
1944	45.453	3.245	14:1	6.70	21.742
1945	46.533	3.350	14:1	6.70	22.445
1946	47.746	3.468	14:1	6.70	23.236
Total 1942 Sales		16.242			108.822
Net		16.242			108.822

Potential demand January 1, 1947 less any production
*Average price per unit 1940–41.

Estimated toasters in use January 1, 1944—16,409,000.
31,371,000 wired homes equals 52.3% saturation.



PERCOLATORS

PAST SALES

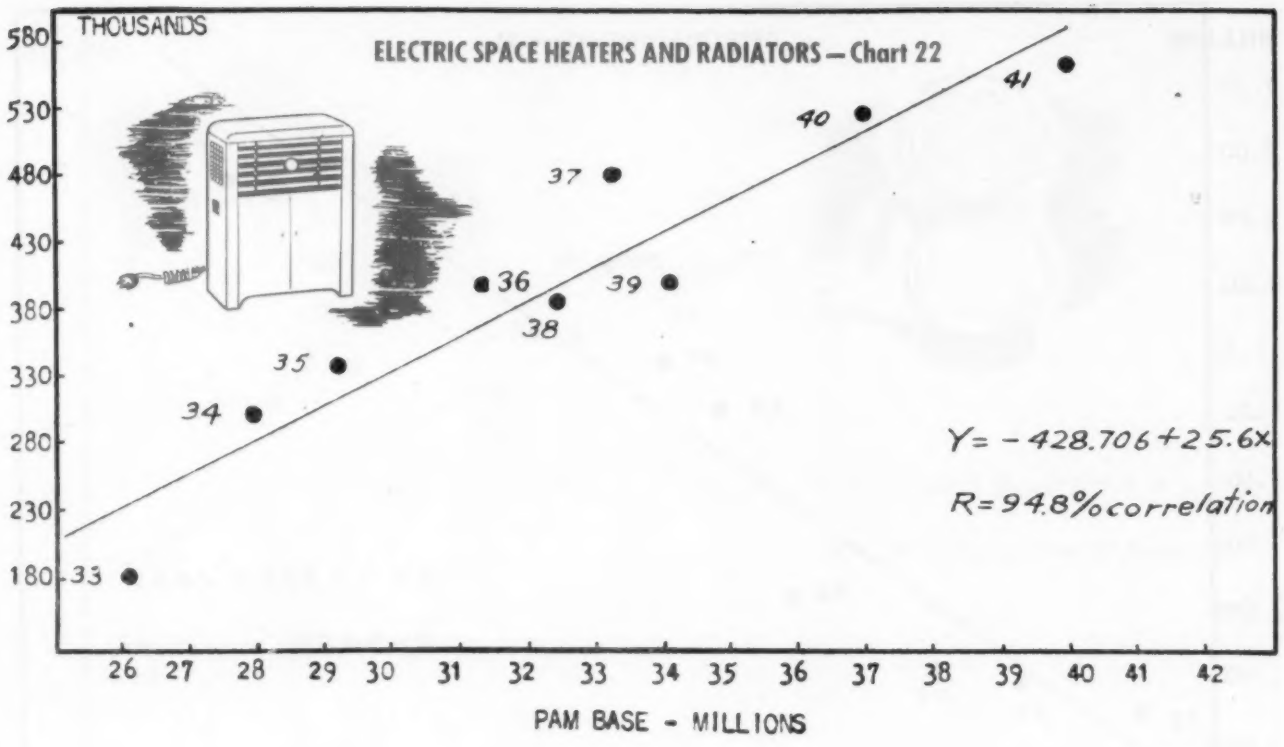
Year	PAM Base	Number Sold Millions	Ratio	Price Each	Retail Value Millions
1933	26.159	.295	89:1	$7.92	$2.338
1934	27.953	.387	72:1	7.73	2.992
1935	29.276	.445	66:1	7.53	3.355
1936	31.293	.665	47:1	4.78	3.180
1937	33.281	1.378	24:1	4.35	5.994
1938	32.400	1.233	26:1	4.20	5.186
1939	34.040	1.674	20:1	3.34	5.600
1940	36.914	1.873	20:1	3.20	6.000
1941	39.868	1.941	20:1	3.49	6.783
1942		1.160		3.61	4.195

PROJECTED SALES

1942	43.575	2.719	16:1	*3.43	9.326
1943	44.139	2.801	16:1	3.43	9.608
1944	45.453	2.992	15:1	3.43	10.263
1945	46.533	3.148	15:1	3.43	10.798
1946	47.746	3.324	14:1	3.43	11.401
Total		14.984			51.395
1942 Sales		1.160		3.61	4.188
Net		13.824			47.207

Potential demand January 1, 1947 less any production.
*Average price per unit 1940–41–42.

Estimated percolators in use January 1, 1944—10,350,000.
31,371,000 wired homes equals 33.0% saturation.



ELECTRIC SPACE HEATERS AND RADIATORS

PAST SALES

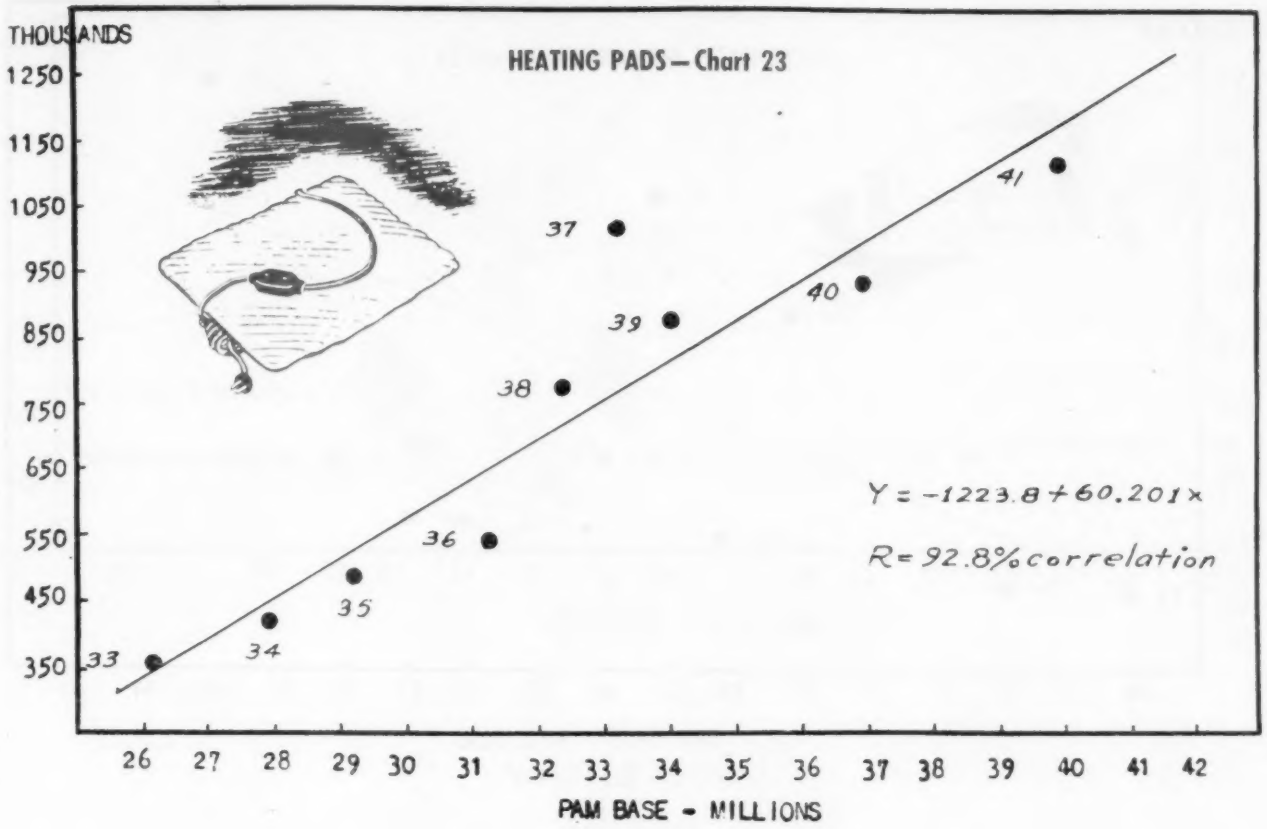
Year	PAM Base	Number Sold Thousands	Ratio	Price Each	Retail Value Millions
1933	26.159	184.820	142:1	$2.12	$.393
1934	27.953	304.863	92:1	2.20	.671
1935	29.276	342.485	85:1	2.35	.805
1936	31.293	400.000	78:1	2.25	.900
1937	33.281	482.950	69:1	3.80	1.835
1938	32.400	388.100	83:1	3.97	1.541
1939	34.040	400.600	85:1	4.18	1.675
1940	36.914	528.000	70:1	3.74	1.975
1941	39.868	564.000	71:1	4.10	2.312
1942		84.000		4.10	.344

PROJECTED SALES

1942	43.575	686.814	63:1	*3.98	2.734
1943	44.139	701.252	63:1	3.98	2.791
1944	45.453	734.891	62:1	3.98	2.925
1945	46.533	762.539	61:1	3.98	3.035
1946	47.746	793.592	60:1	3.98	3.158
Total		3679.088			14.643
1942 Sales		84.000		4.10	.344
Net		3595.088			14.299

Potential demand January 1, 1947 less any production.
*Average price per unit 1940–41–42.

Estimated heaters and radiators in use January 1, 1944—22,477,000.
31,371,000 wired homes equals 71.6% saturation.



HEATING PADS

PAST SALES

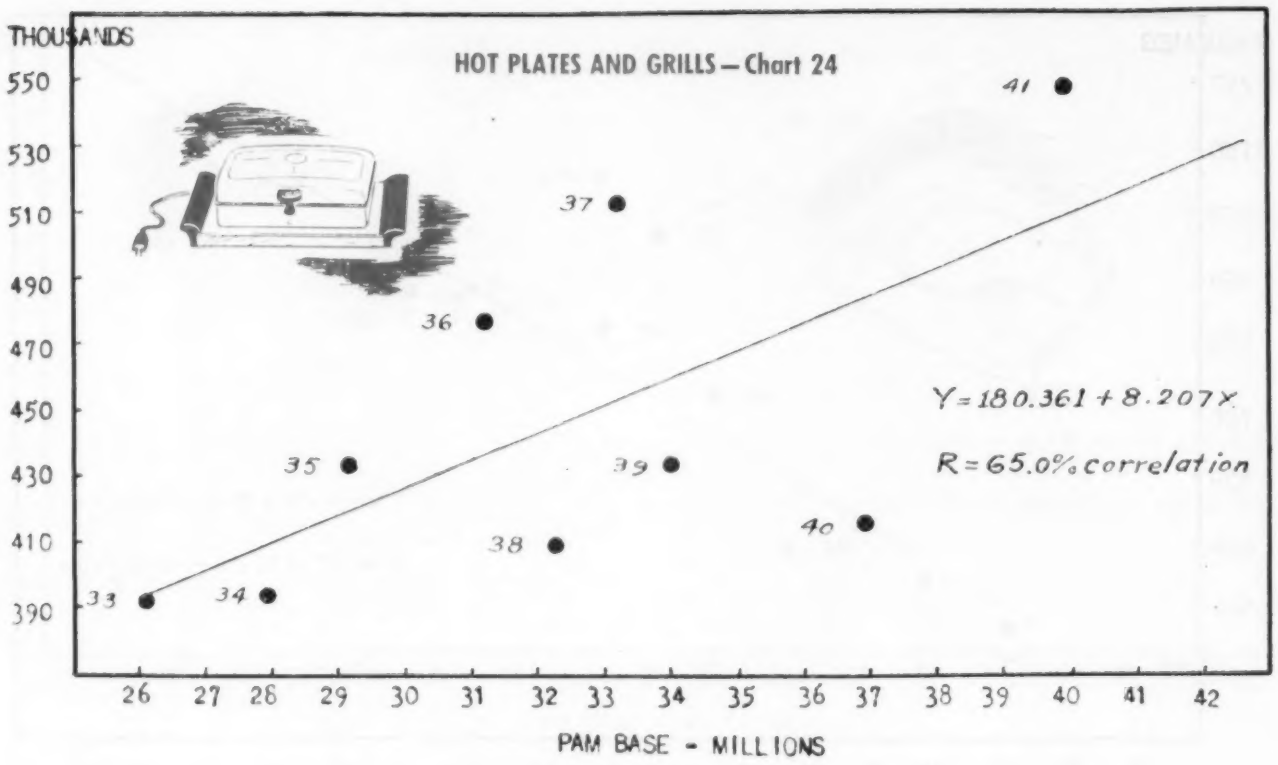
Year	PAM Base	Number Sold Thousands	Ratio	Price Each	Retail Value Millions
1933	26.159	356.687	73:1	$4.19	$1.495
1934	27.953	419.913	67:1	4.62	1.940
1935	29.276	482.900	61:1	4.62	2.231
1936	31.293	540.000	58:1	4.62	2.494
1937	33.281	1013.550	33:1	2.92	2.960
1938	32.400	774.075	42:1	2.82	2.183
1939	34.040	878.900	39:1	2.95	2.593
1940	36.914	931.500	40:1	2.98	2.776
1941	39.868	1117.800	36:1	3.25	3.633
1942		692.400		4.25	2.943

PROJECTED SALES

1942	43.575	1399.458	31:1	*3.49	4.884
1943	44.139	1433.412	31:1	3.49	5.003
1944	45.453	1512.516	30:1	3.49	5.279
1945	46.533	1577.533	29:1	3.49	5.506
1946	47.746	1650.557	29:1	3.49	5.760
Total		7573.476			26.432
1942 Sales		692.400		4.25	2.943
Net		6881.076			23.489

Potential demand January 1, 1947 less any production.
*Average unit price 1940-41-42.

Estimated heating pads in use January 1, 1944—21,641,000.
31,371,000 wired homes equals 69.0% saturation.



HOT PLATES AND GRILLS

PAST SALES

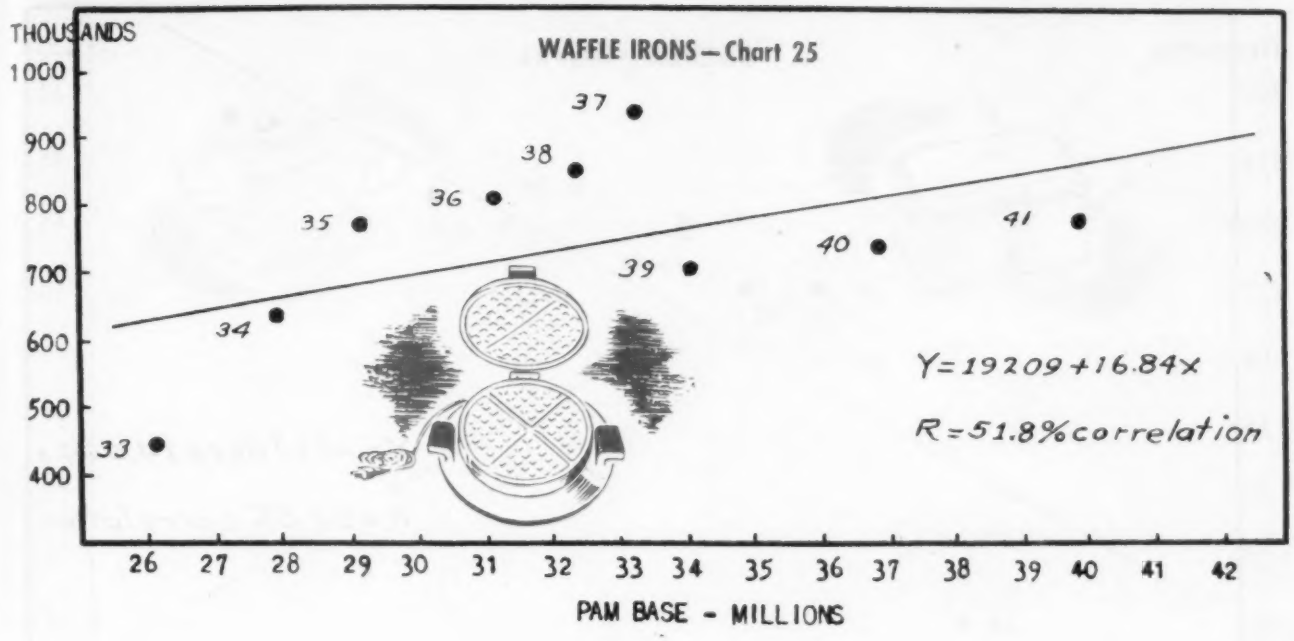
Year	PAM Base Millions	Number Sold Thousands	Ratio	Price Each	Retail Value Millions
1933	26.159	392.490	67:1	$1.90	$.747
1934	27.953	394.439	71:1	2.51	.990
1935	29.276	433.364	68:1	2.51	1.089
1936	31.293	476.000	66:1	2.52	1.200
1937	33.281	512.000	65:1	2.40	1.228
1938	32.400	409.600	79:1	2.50	1.024
1939	34.040	432.200	79:1	2.46	1.063
1940	36.914	415.000	89:1	2.49	1.033
1941	39.868	547.800	73:1	2.61	1.430
1942		200.000		2.65	.530

PROJECTED SALES

1942	43.575	537.981	81:1	*2.58	1.388
1943	44.139	542.610	81:1	2.58	1.400
1944	45.453	553.394	82:1	2.58	1.428
1945	46.553	562.257	83:1	2.58	1.451
1946	47.746	572.212	83:1	2.58	1.476
Total		2768.454			7.143
1942 Sales		200.000		2.65	.530
Net		2568.454			6.613

Potential demand January 1, 1947 less any production.
*Average price per unit 1940-41-42.

Estimated hot-plates and grills in use January 1, 1944—4,816,000.
31,371,000 wired homes equals 15.3% saturation.



WAFFLE IRONS

PAST SALES

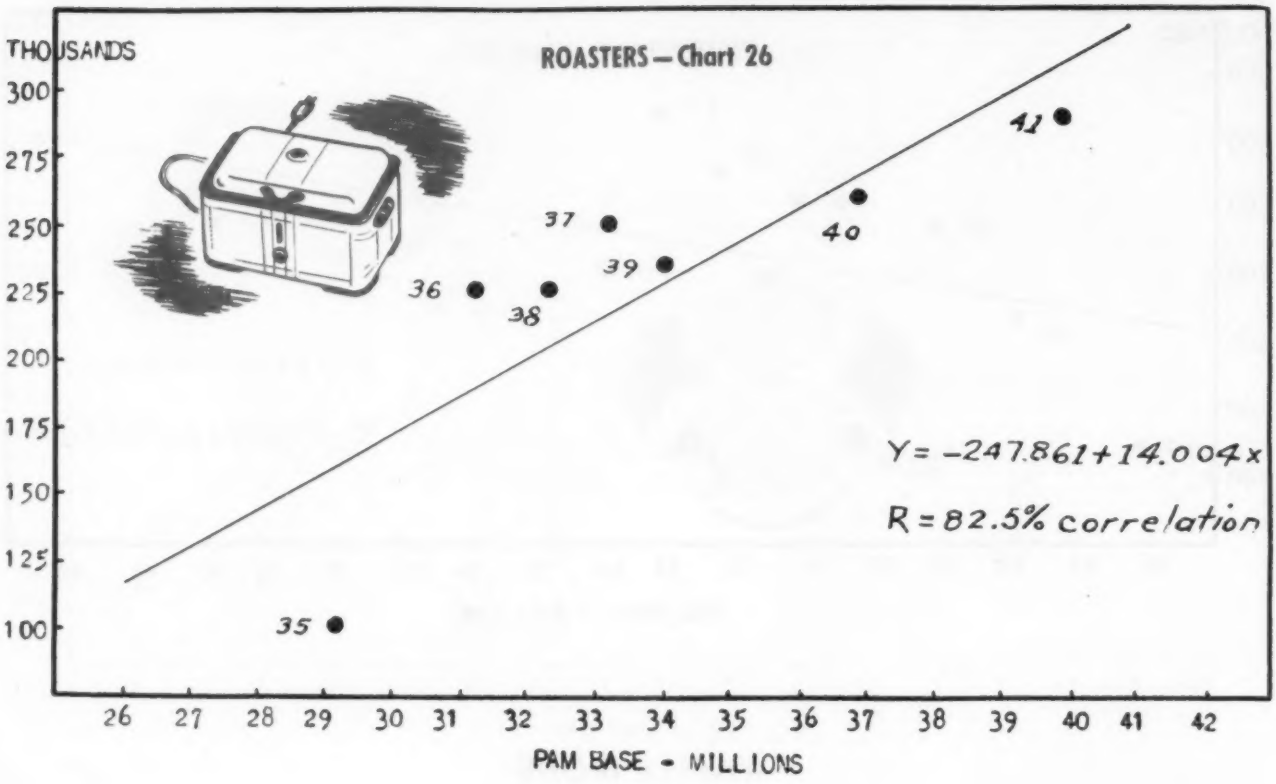
Year	PAM Base Millions	Number Sold Thousands	Ratio	Price Each	Retail Value Millions
1933	26.159	447.345	58:1	$4.54	$2.031
1934	27.953	634.298	44:1	4.84	3.070
1935	29.276	772.215	38:1	4.77	3.684
1936	31.293	810.000	39:1	5.40	4.374
1937	33.281	940.375	35:1	5.10	4.796
1938	32.400	851.320	38:1	5.14	4.376
1939	34.040	704.763	48:1	5.20	3.580
1940	36.914	740.000	50:1	5.00	3.700
1941	39.868	777.000	51:1	5.45	4.196
1942		175.000		5.45	.954

PROJECTED SALES

1942	43.575	930.893	47:1	*5.30	4.934
1943	44.139	940.391	47:1	5.30	4.984
1944	45.453	962.519	47:1	5.30	5.101
1945	46.533	980.706	47:1	5.30	5.198
1946	47.746	1001.133	48:1	5.30	5.306
Total		4815.642			25.523
1942 Sales		175.000		5.45	.954
Net		4640.642			24.569

Potential demand January 1, 1947 less any production.
*Average price per unit 1940–41–42.

Estimated waffle irons in use January 1, 1944—21,476,000.
31,371,000 wired homes equals 68.5% saturation.



ROASTERS

PAST SALES

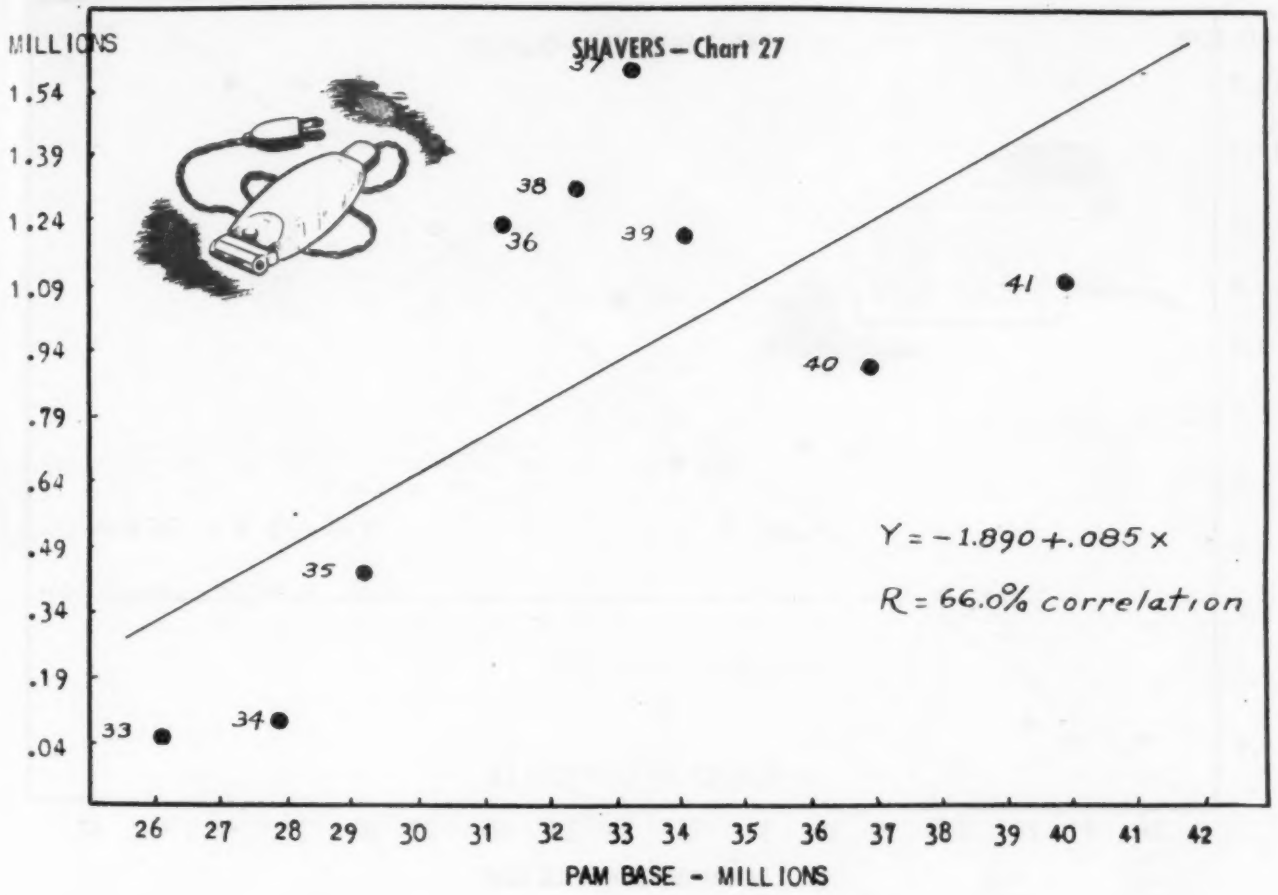
Year	PAM Base Millions	Number Sold Thousands	Ratio	Price Each	Retail Value Millions
1935	29.276	100.000	292:1	$15.00	$1.500
1936	31.293	225.000	139:1	20.00	4.500
1937	33.281	250.000	133:1	20.18	5.045
1938	32.400	225.000	144:1	22.18	4.991
1939	34.040	235.000	145:1	23.30	5.476
1940	36.914	260.000	142:1	23.40	6.084
1941	39.868	290.000	137:1	25.40	7.366
1942		125.000		22.50	2.863

PROJECTED SALES

1942	43.575	362.363	120:1	*23.77	8.613
1943	44.139	370.262	119:1	23.77	8.801
1944	45.453	388.663	117:1	23.77	9.239
1945	46.533	403.787	115:1	23.77	9.598
1946	47.746	420.774	113:1	23.77	10.002
Total		1945.849			46.253
1942 Sales		125.000		22.50	2.813
Net		1820.849			43.440

Potential demand January 1, 1947 less any production.
*Average price per unit 1940–41–42.

Estimated roasters in use January 1, 1944—1,606,000.
31,371,000 wired homes equals 5.1% saturation.



SHAVERS

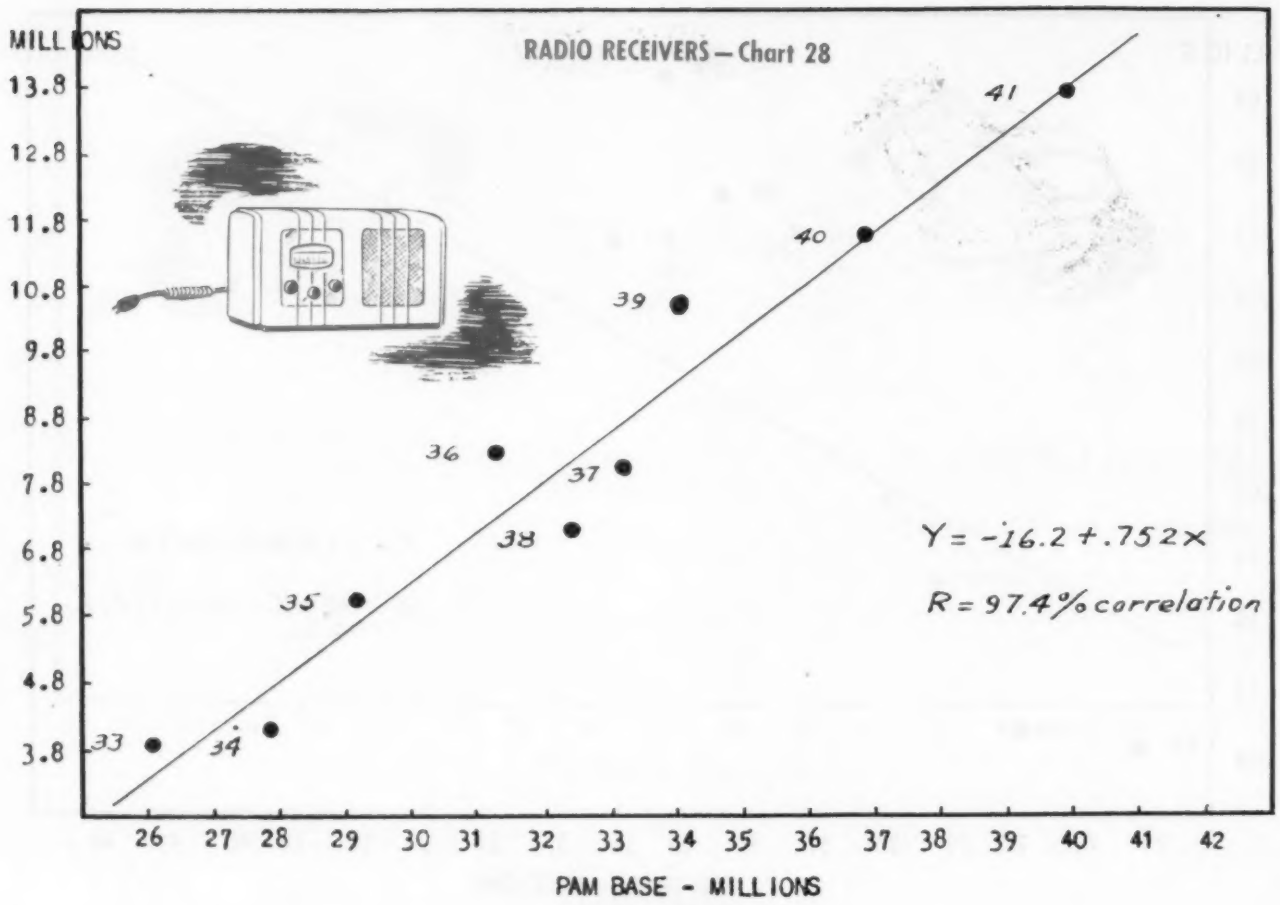
PAST SALES

Year	PAM Base Millions	Number Sold Millions	Ratio	Price Each	Retail Value Millions
1933	26.159	.043	608:1		
1934	27.953	.077	363:1		
1935	29.276	.420	70:1		
1936	31.293	1.223	26:1		
1937	33.281	1.580	21:1	$16.00	$25.280
1938	32.400	1.300	25:1	15.00	19.500
1939	34.040	1.200	28:1	15.00	18.000
1940	36.914	.900	41:1	13.00	11.700
1941	39.868	1.100	36:1	14.50	15.950
1942		.780		15.90	12.402

PROJECTED SALES

1942	43.575	1.814	24:1	*14.47	26.248
1943	44.139	1:862	24:1	14.47	26.943
1944	45.453	1.974	23:1	14.47	28.564
1945	46.533	2.065	23:1	14.47	29.881
1946	47.746	2.168	22:1	14.47	31.371
Total		9.883			143.007
1942 Sales		.780		15.90	12.402
Net		9.103			130.605

Potential demand January 1, 1947 less any production.
*Average price per unit 1940–41–42.



RADIO RECEIVERS

PAST SALES

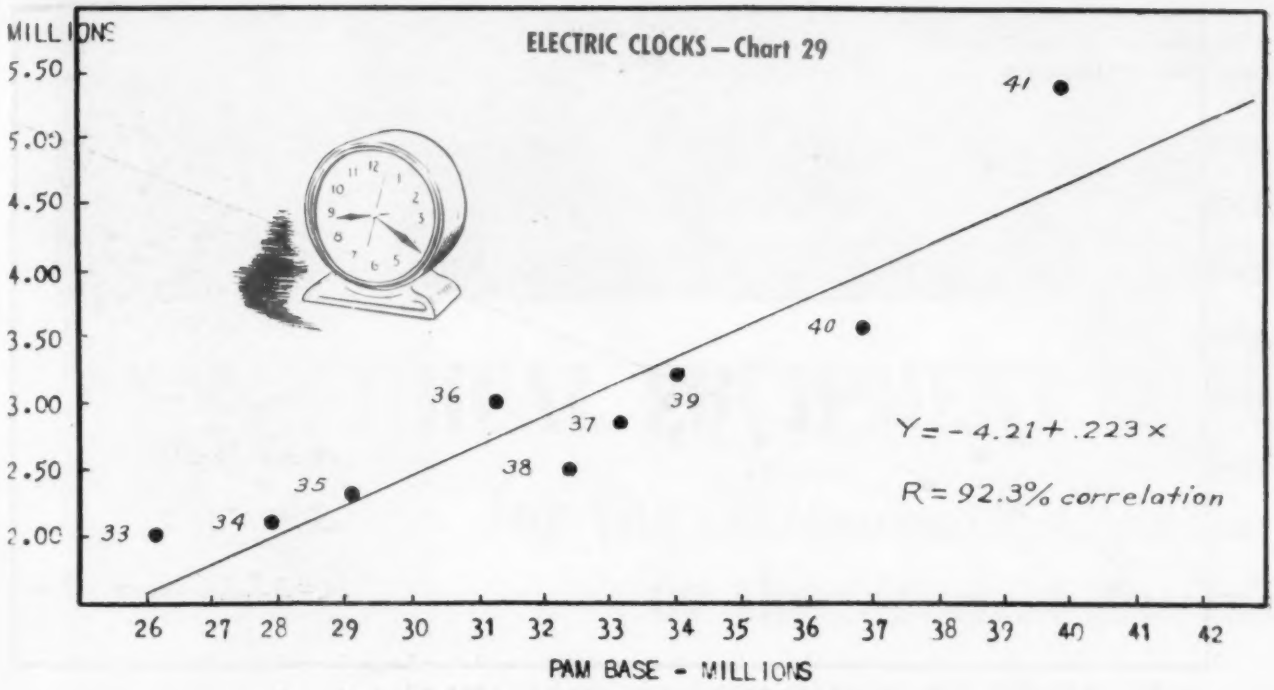
Year	PAM Base	Number Sold Millions	Ratio	Price Each	Retail Value Millions
1933	26.159	3.806	7:1	$60.69	$231.000
1934	27.953	4.084	7:1	66.11	270.000
1935	29.276	6.027	5:1	54.75	330.000
1936	31.293	8.248	4:1	54.56	450.000
1937	33.281	8.065	4:1	55.80	450.000
1938	32.400	7.100	5:1	35.21	250.000
1939	34.040	10.538	3:1	33.69	355.000
1940	36.914	11.531	3:1	30.16	347.841
1941	39.868	13.700	3:1	30.35	415.795
1942		4.307		47.82	205.940

PROJECTED SALES

1942	43.575	16.568	3:1	*36.11	598.270
1943	44.139	16.993	3:1	36.11	613.617
1944	45.453	17.981	3:1	36.11	649.294
1945	46.533	18.793	2:1	36.11	678.615
1946	47.746	19.705	2:1	36.11	711.548
Total		90.040			3251.344
1942 Sales		4.307		47.82	205.961
Net		85.733			3045.383

Potential demand January 1, 1947 less any production.
*Average price per unit 1940–41–42.

U. S. Census Report 1940—34,854,532 occupied dwellings—28,859,592 had radio, equals 82.8% saturation.
Occupied dwellings 1943—36,540,000—Electrical Merchandising estimates 30,500,000 with radio, 83.5% saturation.



ELECTRIC CLOCKS

PAST SALES

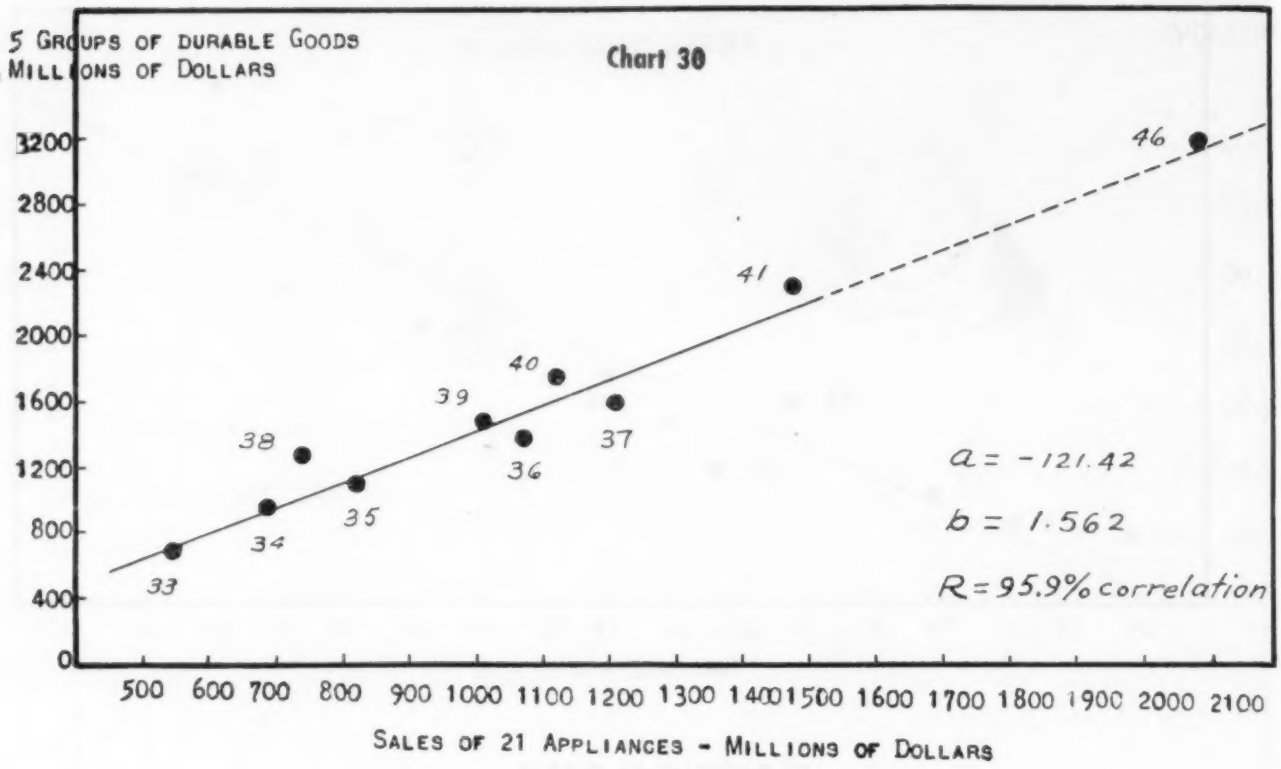
Year	PAM Base	Number Sold Millions	Ratio	Price Each	Retail Value Millions
1933	26.159	2.000	13:1	$6.00	$12.000
1934	27.953	2.100	13:1	6.29	13.200
1935	29.276	2.310	13:1	3.87	8.940
1936	31.293	3.000	10:1	4.00	12.000
1937	33.281	2.877	12:1	4.82	13.866
1938	32.400	2.500	13:1	4.80	12.000
1939	34.040	3.227	11:1	4.80	15.490
1940	36.914	3.600	10:1	4.89	17.600
1941	39.868	5.400	7:1	5.00	27.000
1942		2.000		5.00	10.000

PROJECTED SALES

1942	43.575	5.507	8:1	*4.96	27.315
1943	44.139	5.633	8:1	4.96	27.940
1944	45.453	5.926	8:1	4.96	29.393
1945	46.533	6.167	8:1	4.96	30.588
1946	47.746	6.437	7:1	4.96	31.928
Total		29.670			147.164
1942 Sales		2.000		5.00	10.000
Net		27.670			137.164

Potential demand January 1, 1947 less any production.
*Average price per unit 1940–41–42.

Estimated clocks in use January 1, 1944—17,510,000.
31,371,000 wired homes equals 55.8% saturation.



(*Continued from page* 59)

Now comes the acid test. Having established the relationship of our two sets of figures for nine different years and expressed this relationship by a line of perfection, mathematically computed, the question is,—will this relationship of the two sets of figures continue in the future?

If we take our 1946 Projected Sales for 21 appliances amounting to 2089 millions of dollars and the Projected Sales of five groups of durable goods amounting to 3177 millions of dollars and spot the intersection of these two lines on the chart, it should fall directly on the line of relationship. As you can see, the miss is very small—only 1.1% to be exact.

Thus it would appear that the relationship between our two groups of figures from 1933 to 1941 carries on to 1946 at least and that a degree of harmony exists between the two different methods of projecting our future appliance business.

Here too is proof of two well known sayings:

A—Great minds run in the same channel.

B—Figures don't lie—BUT—

END

ELECTRICAL EQUIPMENT

for the *Mammoth Plant* or the *Modest Building*

In post-war planning which involves expansion, modification or otherwise changing plant set-up or arrangement, the electrical system will doubtless require changes also. FA Engineers can be of great assistance in working out plans and specifications for economical and efficient service. Architects, engineers, and management are invited to submit their electrical problems — without obligation.

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Load Centers and Service Equipment for homes . . . Panelboards for stores and commercial buildings . . . Switchboards — Feeder and Plugin Busduct distribution systems — Distribution Panelboards for power and light, for large and small plants . . . no matter what the requirements, FA can fill them . . . And FA Products are not only *approved* by Underwriters' Laboratories, Inc. They *exceed* the Laboratories' requirements.

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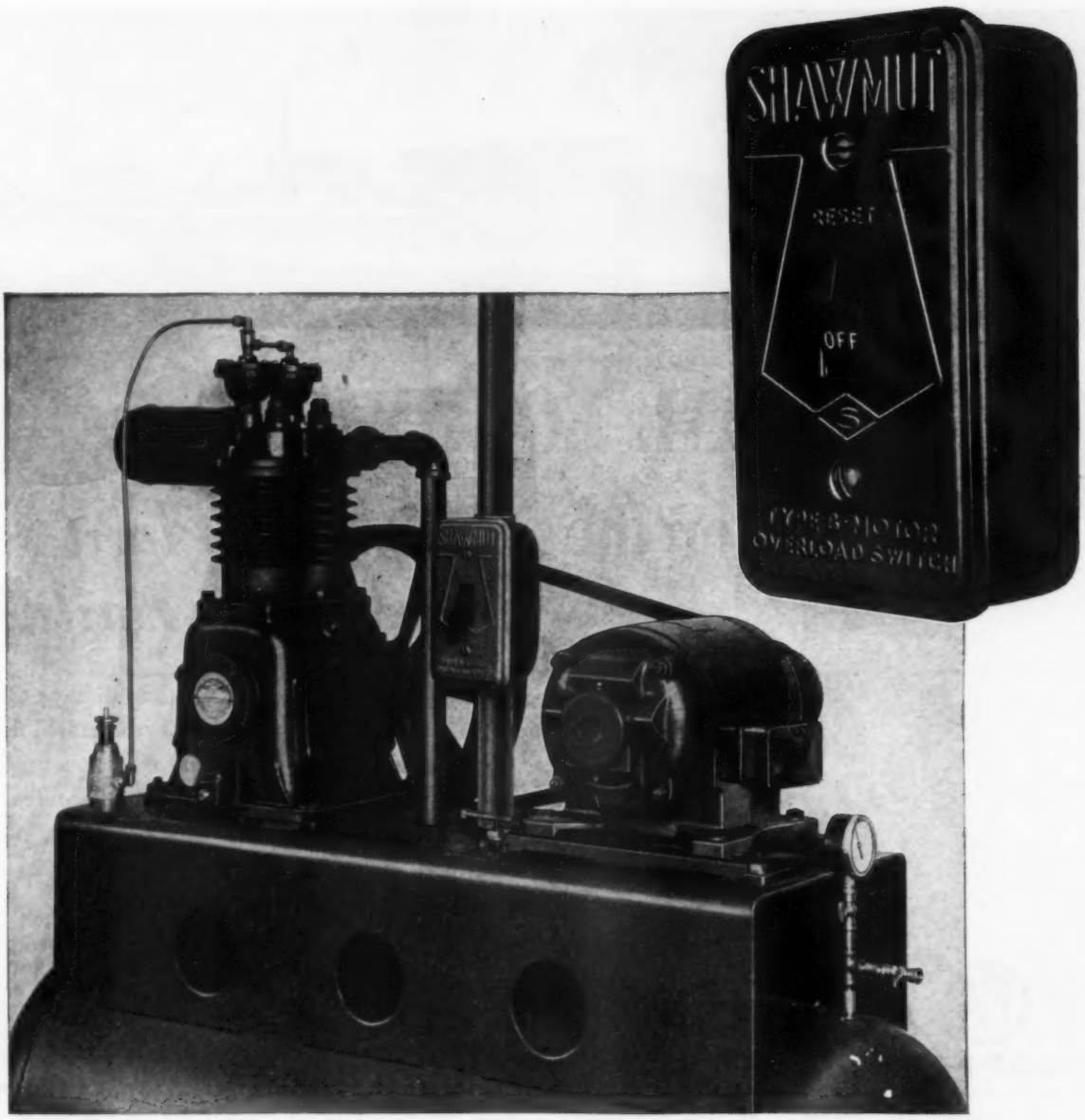

ON SMALL COMPRESSORS

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Feraloy cases. Strong and durable. Four sturdy mounting feet. Many possible conduit arrangements for both horizontal and vertical through feed.

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Padlocks.

1. Cover may be padlocked to prevent unauthorized entry
2. Operating handle may be padlocked "on" or "off."

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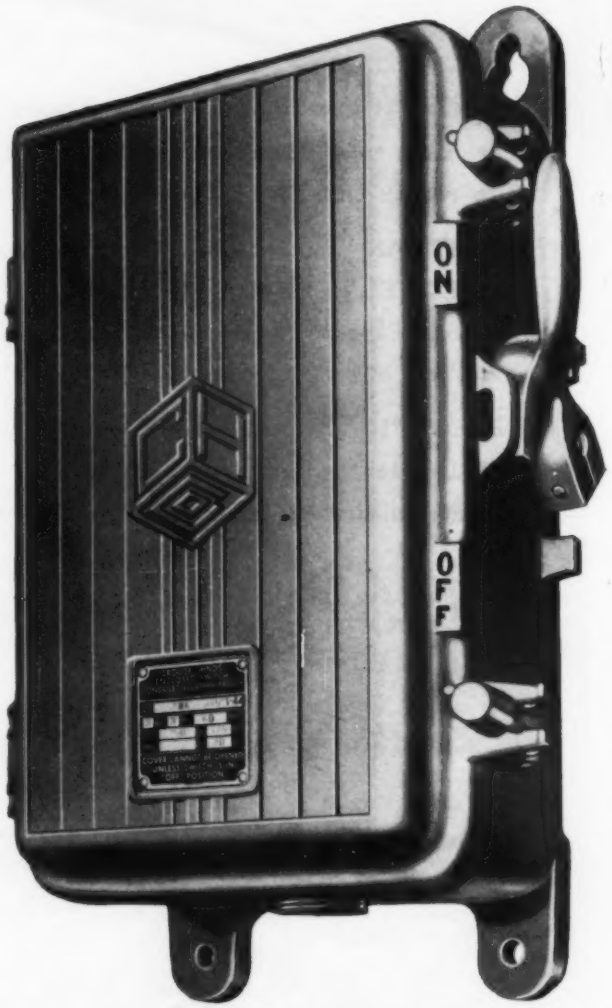
30, 60, 100 or 200-Ampere.
1 to 50-H.P.

125 to 600-volt, A. C.

2 or 3-pole, fusible or fuseless.

Listed in Condulet Catalog No. 2500, Section 50, Page 20A.



CONDULETS are manufactured only by CROUSE-HINDS

A Nationwide Distribution Through Electrical Wholesalers

CROUSE-HINDS COMPANY
SYRACUSE 1, N. Y., U.S.A.

Offices: Birmingham—Boston—Chicago—Cincinnati—Cleveland—Dallas—Denver—Detroit—Houston—Indianapolis—Kansas City—Los Angeles—Milwaukee—Minneapolis New York—Philadelphia—Pittsburgh—San Francisco—Seattle—St. Louis—Washington. *Resident Product Engineers:* Albany—Atlanta—Charlotte—New Orleans
CROUSE-HINDS COMPANY OF CANADA, LTD., *Main Office and Plant:* TORONTO, ONT.

CONDULETS · TRAFFIC SIGNALS · AIRPORT LIGHTING · FLOODLIGHTS

Can you afford an architect

THE TRUTH IS, you can't afford to build *without* an architect! You must have his expert help unless you are prepared to face unforeseen expenses, such as repairing cracked walls, patching roof leaks, replacing unsatisfactory materials. The architect will design a house that avoids such heartaches—that fits your pocketbook as well as your dreams.

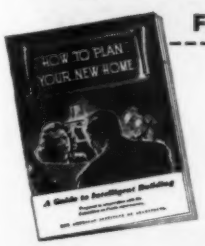
Stock plans, which may tempt you as a possible saving, may actually cost more than architectural service, because of things which go wrong. Remember, that plan was drawn by someone who had never seen your lot or met your family. And such cut-and-dried affairs are often devoid of good taste.

The architect will translate your hopes into your own personal home—not just a house. He will supervise it as it grows, protect your interests. There are literally hundreds of ways he can save you his total fee. Send for our new booklet telling how you two can best work together.

If you served on the board of a hospital or school, you would insist on an Architect-Engineer before building. Your home represents as important an investment—protect it the same way!

Plan your house now!
START RIGHT—
WITH AN
ARCHITECT.

EDWARDS
SINCE 1872
ELECTRICAL SIGNALING
Bells · Chimes · Telephones · Alarms
for Homes, Offices, Schools, Hospitals



FREE . . . GET THIS NEW ILLUSTRATED BOOK!

EDWARDS AND COMPANY, NORWALK, CONN.
Please send copy of book "How to Plan Your New Home."

Name_____

Street_____

City_____ State_____

(Save Postage—Paste Coupon on Penny Post Card)

ELECTRICAL WHOLESALERS you're in this picture, too!

Right now millions of prospective home owners are reading the Edwards advertisement on the left. It's one of a series in color now running in Time and in American Home—a series that explains the architect's place in planning that postwar home.

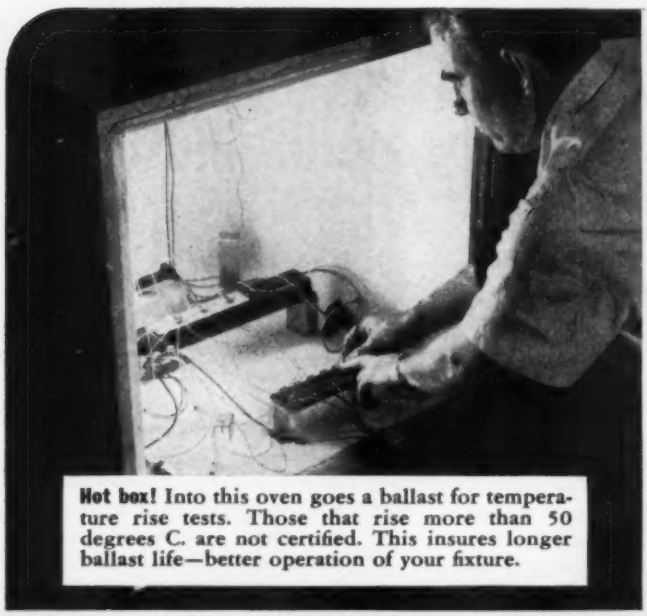
Where do you come in? Well, it's very simple—an architect-planned home is a better planned home, because provision is made for adequate wiring, for better electrical equipment. These advertisements are building up a postwar market for you, besides winning the goodwill of the entire architectural profession.

Is the public interested?—definitely! Over 10,000 readers wrote in for the free booklet "How to Plan Your New Home"—in response to the first ad alone; others will appear throughout the year. What interests home owners to this extent is interesting to you. Write for a copy of this booklet now; it is yours for the asking.

Certified ballasts and starters:

one key to FLEUR·O·LIER'S dependable operation

● Fleur-O-Lier fluorescent lighting fixtures give you dependability, protection and service. *Certified ballasts and starters are two of the most important reasons why.* Like all parts of the Fleur-O-Lier fixture they are tested and certified by impartial Electrical Testing Laboratories, Inc. of New York, as meeting definite Fleur-O-Lier standards. Here are four tests that tell you why you'll want fixtures bearing this label:



Hot box! Into this oven goes a ballast for temperature rise tests. Those that rise more than 50 degrees C. are not certified. This insures longer ballast life—better operation of your fixture.

On time! Checking starting time of lamp starters at 110 to 130 volts . . . a test made not only at E. T. L., but weekly by E. T. L. inspectors at the factories. Double-check on dependability!

Warm-up! Ballast temperature is measured in a complete fixture after operation for at least five or six hours —and ballast is watched carefully for any signs of overheating. Tested *in service* to protect you!

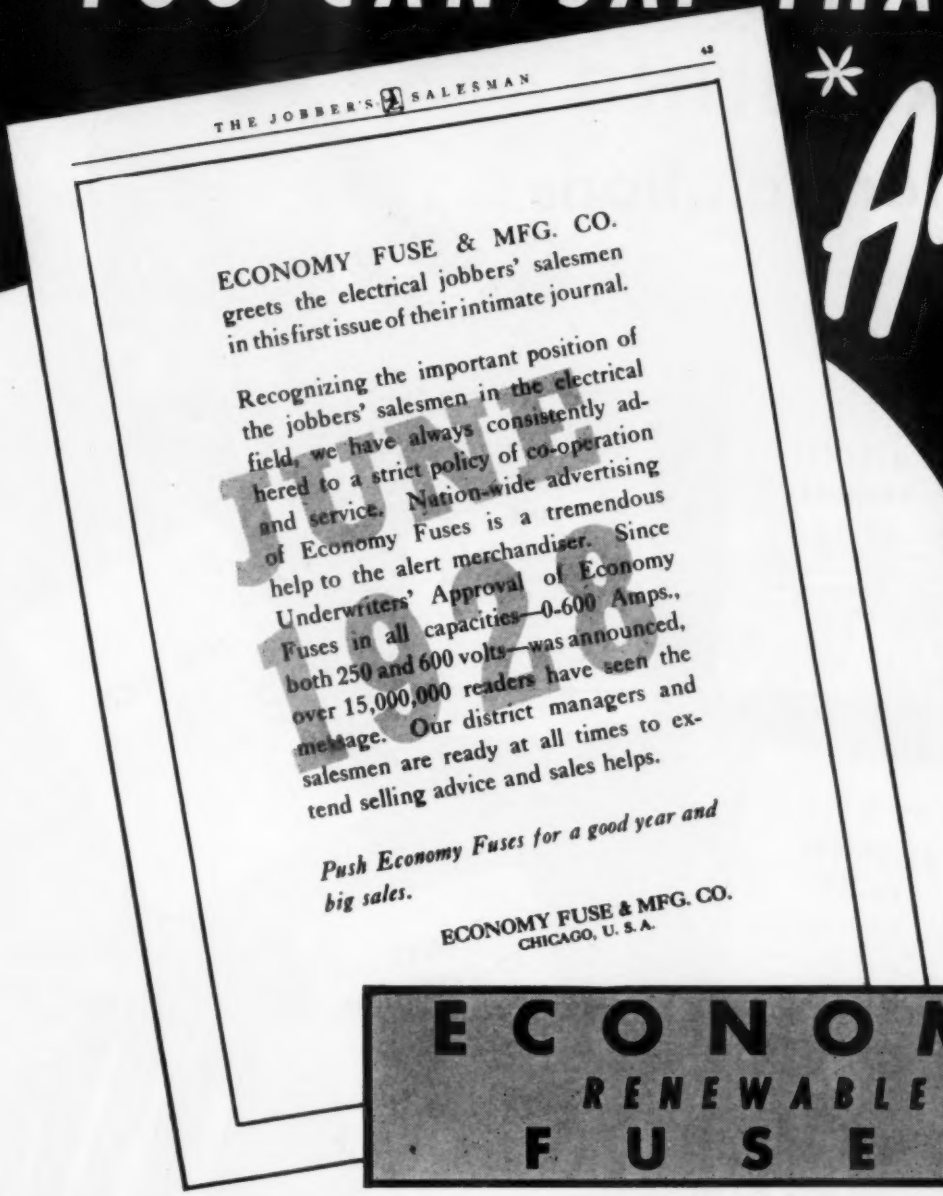
Make or break! This test of fluorescent lamp starters determines if they operate properly at voltage variations encountered in service. Means satisfactory starting and good lamp operation in your fixture.

FLEUR·O·LIERS

CERTIFIED FIXTURES FOR FLUORESCENT LIGHTING

Participation in the FLEUR-O-LIER MANUFACTURERS' program is open to any manufacturer who complies with FLEUR-O-LIER requirements

"YOU CAN SAY THAT * Again !"


THE JOBBER'S SALESMAN
ECONOMY FUSE & MFG. CO.
greets the electrical jobbers' salesmen in this first issue of their intimate journal.
Recognizing the important position of the jobbers' salesmen in the electrical field, we have always consistently adhered to a strict policy of co-operation and service. Nation-wide advertising of Economy Fuses is a tremendous help to the alert merchandiser. Since Underwriters' Approval of Economy Fuses in all capacities—0-600 Amps., both 250 and 600 volts—was announced, over 15,000,000 readers have seen the message. Our district managers and salesmen are ready at all times to extend selling advice and sales helps.
Push Economy Fuses for a good year and big sales.
ECONOMY FUSE & MFG. CO.
CHICAGO, U. S. A.

*** Said by one of our Wholesalers just the other Day**

ECONOMY RENEWABLE FUSES

ECONOMY
Renewable Cartridge Fuses and "drop out" Renewal Link

CLEARSITE
Plug Fuses—shows when blown

ARKLESS
Non-Renewable Mechanical Indicating Cartridge Fuses

ECO
Non-Renewable — Non-Indicating Cartridge Fuses

. . . so we say it again . . . we re-assert our "Unwavering Faith in the Wholesaler" by re-producing here our ad run in 1928 in the JOBBER'S SALESMAN—predecessor to WHOLESALER'S SALESMAN. We are ready now as then to give advice and sales help to our Wholesalers to aid them in serving both the established market and the new market which will be born of today's industrial advancement.

"ECONOMY FUSES SINCE 1911"

ECONOMY FUSE AND MANUFACTURING CO.
2717 N. Greenview Ave. Chicago 14, Ill.

The Cards are On the Table
in ROEBLING
Distributor Relations

A
QUALITY PRODUCT
Wires and cables of top quality, capable of delivering service that means satisfied customers and repeat business.
K
COMPLETE LINE
A line that is complete and permits supplying the requirements of every user.
A
FAIR PRICE
A price basis that permits competitive selling, yet assures a reasonable profit.
K
CLEAN-CUT POLICY
A business relationship in which the status of competition and territories is clearly understood.
A
SALES CO-OPERATION
Thorough-going sales assistance in the form of industry-wide advertising, frequent direct mail contacts and engineering service made available.

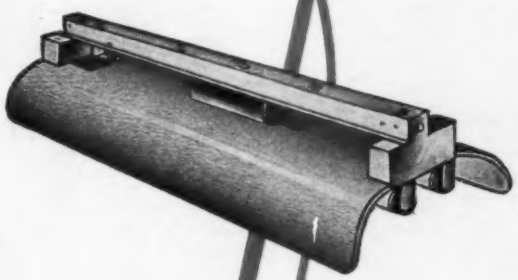
ROEBLING

Wire Rope and Strand • Fittings • Electrical Wires and Cables
High and Low Carbon Acid and Basic Open Hearth Steels
Wire Cloth and Netting • Aerial Wire Rope Systems
Suspension Bridges and Cables • Round and Shaped Wire
Cold Rolled Strip • Aircord, Swaged Terminals and Assemblies

Pacemaker in Wire Products

JOHN A. ROEBLING'S SONS COMPANY
TRENTON 2, NEW JERSEY
Branches and Warehouses in Principal Cities

Neer INSTA-START Fluorescent Industrial



INSTANT-POSITIVE STARTING HAS NO STARTER SWITCHES, TURNS ON AND OFF AS QUICKLY AS AN INCANDESCENT FIXTURE.

This new super-powered lighting unit operates standard 40 watt and 100 watt Fluorescent Lamps. Its insta-start ballast is made and guaranteed for a full year by a leading manufacturer of electrical transformers.

Insta-start units reduce maintenance by the elimination of starter switches. Turn on and off like an incandescent lighting fixture.

Will operate on as low as 85 volts, which is important in plants where load capacities are a problem.

Insta-start units will operate at zero temperatures. Lamps will not blow-out in cold drafts.

Investigate this new Fluorescent Insta-start lighting unit today. Obtainable for immediate delivery.

50-A-SERIES' FEATURES . . . INSTA-START OUTSTANDING

1. It's easier to install with this new rigid simplified construction.
2. Entire wireway and ends may be exposed quickly, without taking fixture down.
3. May be surface-chain or stem mounted singly or in continuous runs.
4. Exposed ballast gives longer life and cooler operation. Inverted under channel.
5. Special K. O. for pull switch is provided in lamp holder cover.
6. Complies with all W.P.B. and U. S. Bureau of Standard Regulations.
7. Underwriters' Laboratories approved equipment used in all these fixtures.
8. Union Made—International Brotherhood of Electrical Workers, A. F. of L. Bear their label.

All Metal Commercials & Industrials

AVAILABLE FOR EARLY DELIVERY

Designed to deliver the maximum of light and embodying many unusually attractive design features, the new L. P. I. all Steel Commercial and Industrial Fixtures will more than meet your most rigid resquirements. Inquire now about types soon to be available.

LIGHTING PRODUCTS INC. HIGHLAND PARK • ILLINOIS

BETTER LIGHTING
HELPS THOSE WHO ARE FIGHTING

WELL-DISTRIBUTED lighting in a war factory, which gives the worker freedom from glare and shadow, means more tanks and guns and planes for our fighting men at the front.

Today, manufacturers of modern fluorescent lighting units are making more and more use of Masonite* Reflector Shapes. The new, streamlined fixtures are winning a place in modern lighting for essential war work. And manufacturers are finding that these hardboard reflectors have many distinct advantages.

Light weight but extremely durable, Masonite Reflector Shapes are installed quickly, serviced easily. They resist moisture, have very low electrical conductivity, are non-scaling and cannot rust. Fine reflecting coats are easily applied.

You'll want to know more about these shaped reflectors—both for better lighting now and after the war. You'll like their light weight, simple design, rugged strength and the fact that they can be maintained so economically. For more details, write Masonite Corporation, 111 W. Washington St., Chicago 2, Illinois.

MASONITE CORPORATION

Awarded to the Masonite Corp. Plant at Laurel, Miss.

*TRADE-MARK REG. U. S. PAT. OFF. COPYRIGHT 1944, MASONITE CORPORATION

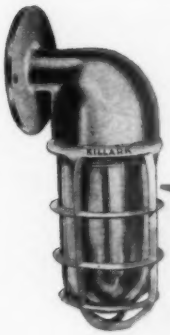
KILLARK FITTINGS

RIGHT DESIGN

CORRECT INSTALLATIONS

2500 SIZES AND TYPES

MONEY AND TIME SAVERS



● KILLARK today covers the nation with 14 factory stocks and has distributors in most jobbing centers—"on-the-dot" service—Distributors will find this a profitable line—investigate now—get catalog.

● Smooth finish, highly flexible, flat bottoms—easy to handle and to install—they lie flat and stay put—they eliminate bother and worry.

● Every job is a perfect one—uniformity is one reason—strength is another—they help to line up conduit after fittings are attached.

● There is always the right fitting. KILLARK makes practically all types of fittings so that the right one is always available—each is made to fit the job.

● KILLARK Fittings do save time and money and are easier to handle because they help to line up conduit perfectly and, because they are properly designed, they are more economical to use.

KILLARK ELECTRIC MFG. CO. 3940 EASTON AVE. ST. LOUIS, MO.

FARADAY SIGNALS
meet every industrial need

Whether your customer's situation calls for bells or buzzers, horns or the 10,000-M blast of the high-power Kodaire, you'll find the right answer in the complete Faraday line. All Faraday equipment is built for long service, easy installation, and minimum maintenance costs.

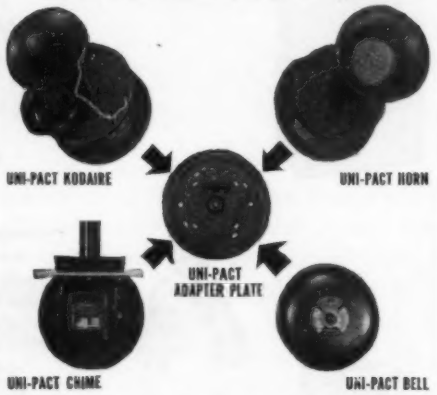
WE BUILD SPECIAL TYPE SIGNALS

Whenever you meet a special signal requirement, remember that our modern plant at Adrian is equipped to handle special orders for designed-to-order signaling devices, as well as the comprehensive standard lines in our catalog. All you need to do is get the specifications, mounting details, and other information—send it to us—and Faraday engineers will go to work on the problem, to help you get the business!

Get This FREE Handbook—The latest Faraday catalog is a veritable handbook of modern signals, completely illustrated and indexed. It's yours, FREE for the asking. Let it help you increase your signal business!

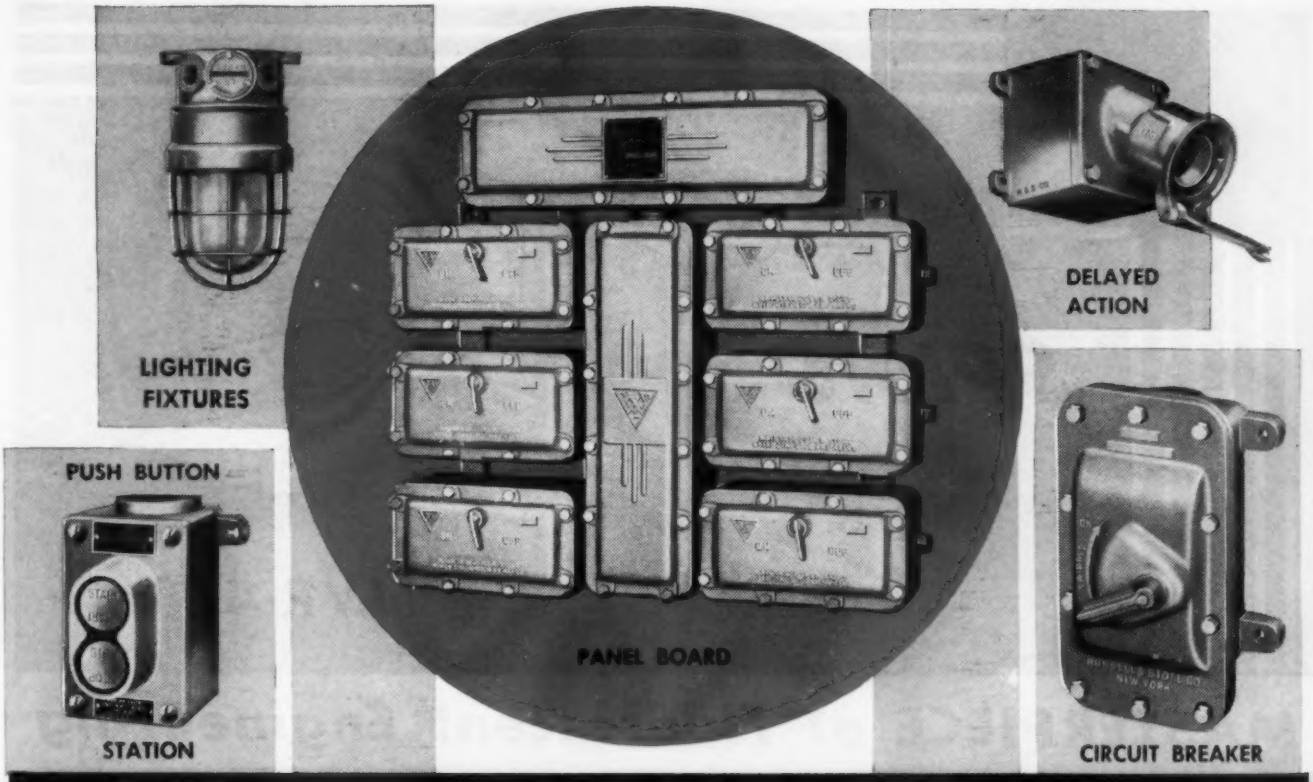
FARADAY

KODAIRES, HORNS, BELLS, CHIMES
all fit the same UNI-PACT plate



The UNI-PACT Safety Dead Front Adapter Plate is part of each UNI-PACT signal assembly. With UNI-PACT, you can change signals as conditions change in any part of your plant —easy as plugging in a toaster! Full details in our catalog.

FARADAY ELECTRIC CORPORATION
A consolidation of Schwarze Electric Co. and Stanley & Patterson
ADRIAN, MICHIGAN



ELECTRICAL SAFETY . . .

in Hazardous Locations

Since 1902
the
standard for
CHEMICAL
FOOD
MARINE
POWDER
REFINERY
TEXTILE
and all outside installations

That is what R & S fittings and fixtures have achieved since 1902. As industry expanded, resulting in greater volumes of industrial dust, new processes and ever larger hazardous areas, R & S pursued a policy: "If we don't have it, we'll make it."

The result is a single catalog of 300 pages of the largest and most complete line of fixtures and fittings designed exclusively for the hazards of moisture, liquids, dust and gases of all kinds.

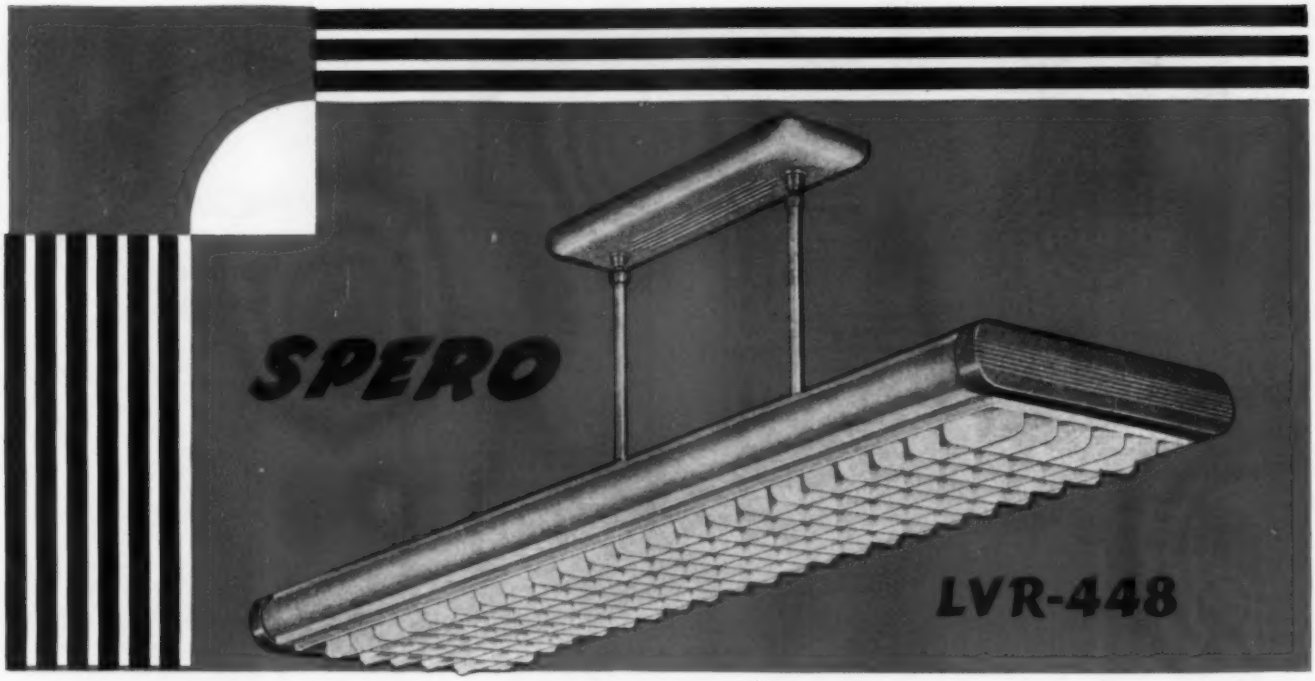
You may not need a delayed action switch, or a light that will work under water, but most of the industrial, outdoor and marine jobs you are considering should be protected against moisture, dust or explosive gases for a life-time with R & S products.

If you make electrically operated equipment that is to work under these hazards, it should be equipped with R & S products before it leaves your plant.

Leading electrical jobbers, engineers and contractors have the latest R & S Catalog (No. 90), and can give you good service and good advice.

RUSSELL & STOLL COMPANY
EXPLOSION-PROOF WATER-TIGHT AND EVER-LOK RECEPTACLES, PLUGS, CONNECTORS, SWITCHES AND FIXTURES
125 BARCLAY STREET • NEW YORK 7, N. Y.

4



MASTERPIECE *of Fluorescent Engineering*

The ideal commercial fixture . . combining highest efficiency, modern design, minimum glare and low maintenance costs

All the elements of correct design have been incorporated in this outstanding fixture. The light from the four 40W tubes is shielded by evenly-spaced egg-crate louvres, minimizing glare. Reflecting surfaces, finished in "Plastox" white (88% reflection factor) are so arranged as to eliminate "trapped light"—resulting in high intensity with low surface brightness. Plastic side panels shield end tubes and contribute to the smart streamlined appearance of this modern unit.

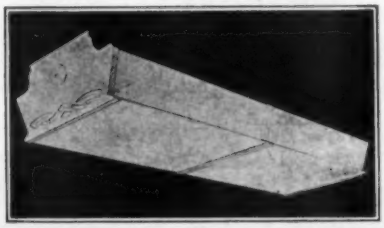
Made for stem or flush mounting. For stem mounting the unit is equipped with an attractive ceiling canopy. Maintenance is extremely simple: relamping and replacing starters is quickly done from the top without disturbing louvres. Reflectors and louvres are easily removed for cleaning. Ballasts are replaceable without taking fixture from ceiling. Available with Spero Insta-lite—providing instantaneous lighting and still further reducing maintenance costs by eliminating starting switches.

THE SPERO PLANT STANDS BEHIND THE ELECTRICAL WHOLESALER

In spite of shortages and resrictions, Spero has continued to make and supply customers its regular line as far as possible. Spero products are sold only through legitimate electrical wholesalers.

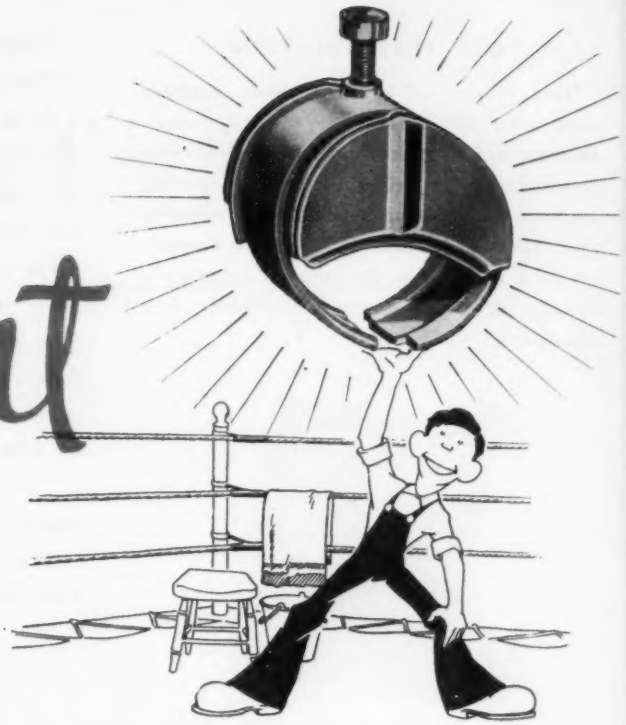
INSTA-LITE URC FLUORESCENT

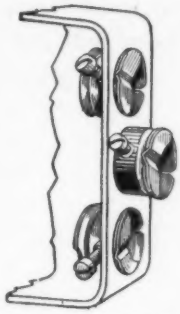
Glass panels on sides and bottom completely shield the tubes and diffuse light in this attractive fixture, built to conform with recommendations of the Utilities Research Commission. Available with or without Spero Insta-lite.



THE SPERO ELECTRIC CORPORATION
18222 LANKEN AVE. ★ CLEVELAND, OHIO

It's a Knockout!



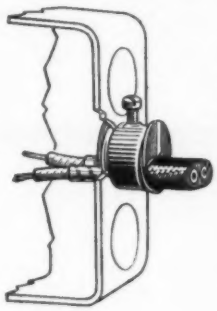


Inside or Outside the Box

Here is a T&B Knockout for your customers who've got non-metallic cable to shove into boxes and want fast, inexpensive approved connectors for the job—*and want them now.*

Available for quick shipment.

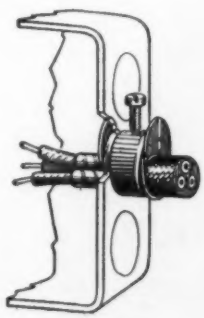
They are the ideal connector for old or new work because they snap into the knockout from either the inside or the outside of the outlet box. Working from the inside of the box, you can connect cables without disturbing the surrounding finished surfaces.



For 2-Wire Cables

Here's the dope in a nut shell:

T&B 2020* is made of sturdy, springy steel and designed solely for knockouts. Easy and quick to install. Just pinch the sides together and snap into the knockout hole inside or outside the box. No Locknut to tighten. Grooves hold the connector in place. No rough edges or projections. Now shove in your cable. As you turn down the screw, the clamp forces the cable against the walls of the connector and they expand, tightly gripping the knockout, and protecting the cable from any rough edges of the knockout. Job done.



For 3-Wire Cables

Catalog Number 2020. For ½" K.O. Holds wide range of non-metallic cables 14-2, 14-3, 12-2, 12-3, 10-2, 10-3 and others. Approved by Underwriters Laboratories.

Deliveries on 2020's as fast as we can wrap 'em up and shoot 'em out. Phone, wire or write your order to your nearest T&B regional office.

Under the T&B Plan, 2020 Connectors, like all other T&B products are sold only through you T&B Distributors.

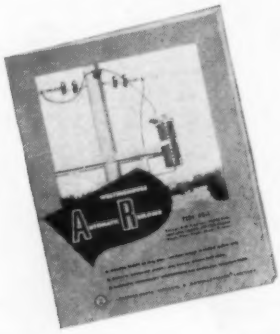
T&B

THE THOMAS & BETTS CO.
INCORPORATED
manufacturers of electrical fittings since 1899
ELIZABETH, N. NEW JERSEY
In Canada: Thomas & Betts Ltd. Montreal

*Patented

GET THIS BULLETIN

This bulletin—B-3329—presents complete application data on the new AR-1 Reclosers. It describes how to co-ordinate them with other protective devices, gives features, dimensions, methods of mounting and ordering information. Ask your nearest Westinghouse distributor for a copy today. Or, write Westinghouse Electric & Manufacturing Company, East Pittsburgh, Pa., Dept. 7-N.



Your Westinghouse distributor offers two ready answers to circuit protection problems on extended distribution lines.

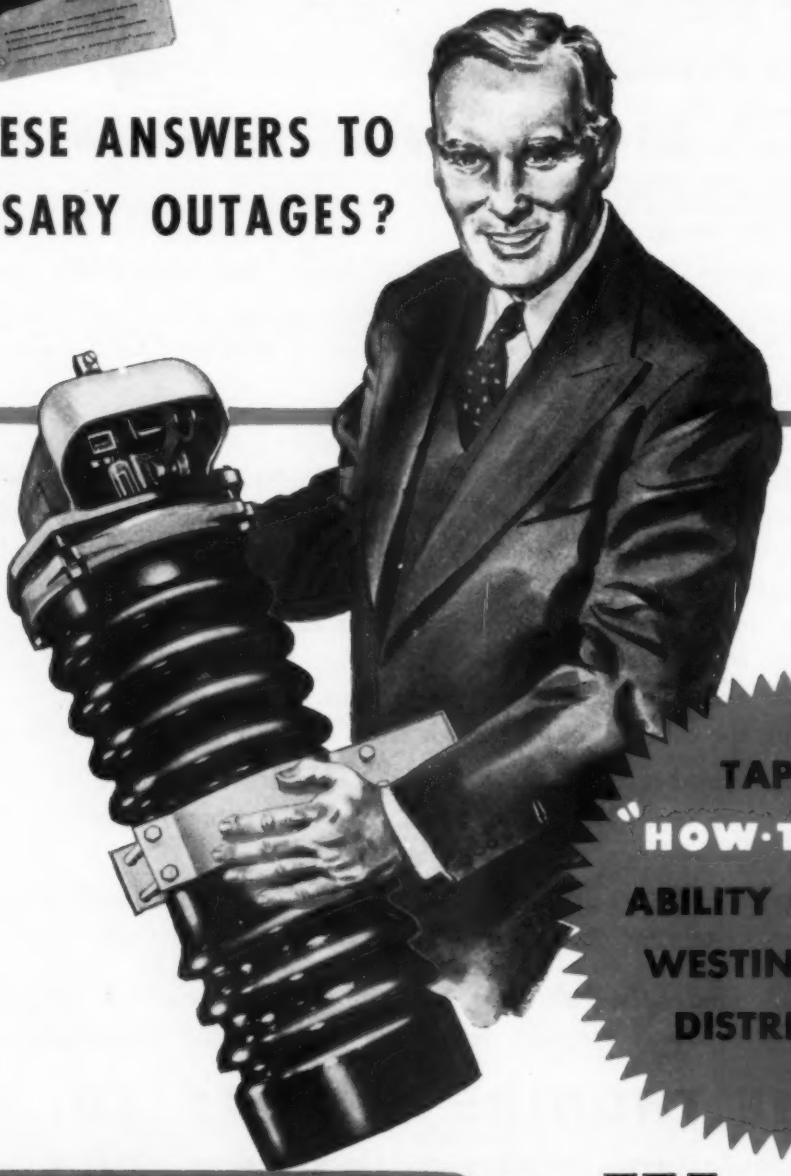
First: Westinghouse Type AR-1 Reclosers which give maximum protection with minimum outages on long rural systems.

Second: The distributor's own "how-to-do-it" ability . . . based on his own and Westinghouse experience in similar applications.

On temporary faults, the AR-1 Recloser *opens, recloses* and *resets itself.* It is then ready for operation over the same cycle. If the line fails to clear, the recloser attempts to re-energize the line three times and then locks out. Ample time delay on tripping permits co-ordination with other reclosers and standard fuses to reduce line outages to an absolute minimum.

The AR-1 Reclosers eliminate inspection and service trips on transient faults, avoid revenue loss on unnecessarily dead lines, improve suburban rural line service, build customer good will. Ask your Westinghouse distributor about them today. J-90510

TRIED THESE ANSWERS TO UNNECESSARY OUTAGES?



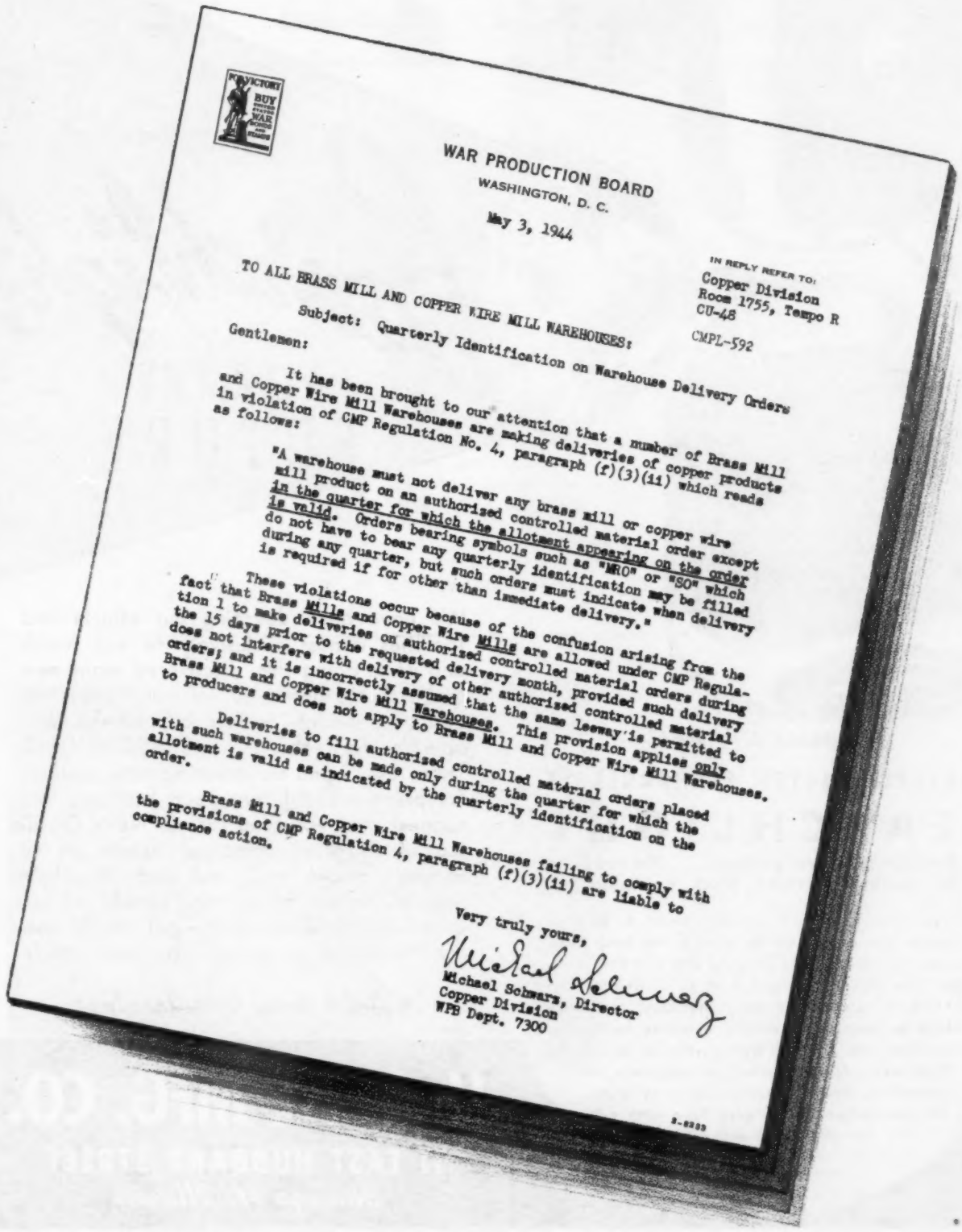
TAP THE "HOW-TO-DO-IT" ABILITY OF YOUR WESTINGHOUSE DISTRIBUTOR

SEE YOUR WESTINGHOUSE DISTRIBUTOR *FIRST!*

Westinghouse

PLANTS IN 25 CITIES . . . OFFICES EVERYWHERE

WPB Explains CMP-4



WAR PRODUCTION BOARD
WASHINGTON, D. C.

May 3, 1944

IN REPLY REFER TO:
Copper Division
Room 1755, Tempo R
CU-48

CMPL-592

TO ALL BRASS MILL AND COPPER WIRE MILL WAREHOUSES:

Subject: Quarterly Identification on Warehouse Delivery Orders

Gentlemen:

It has been brought to our attention that a number of Brass Mill and Copper Wire Mill Warehouses are making deliveries of copper products in violation of CMP Regulation No. 4, paragraph (f)(3)(ii) which reads as follows:

"A warehouse must not deliver any brass mill or copper wire mill product on an authorized controlled material order except in the quarter for which the allotment appearing on the order is valid. Orders bearing symbols such as "MRO" or "SO" which do not have to bear any quarterly identification may be filled during any quarter, but such orders must indicate when delivery is required if for other than immediate delivery."

These violations occur because of the confusion arising from the fact that Brass Mills and Copper Wire Mills are allowed under CMP Regulation 1 to make deliveries on authorized controlled material orders during the 15 days prior to the requested delivery month, provided such delivery does not interfere with delivery of other authorized controlled material orders; and it is incorrectly assumed that the same leeway is permitted to Brass Mill and Copper Wire Mill Warehouses. This provision applies only to producers and does not apply to Brass Mill and Copper Wire Mill Warehouses.

Deliveries to fill authorized controlled material orders placed with such warehouses can be made only during the quarter for which the allotment is valid as indicated by the quarterly identification on the order.

Brass Mill and Copper Wire Mill Warehouses failing to comply with the provisions of CMP Regulation 4, paragraph (f)(3)(ii) are liable to compliance action.

Very truly yours,

Michael Schwarz

Michael Schwarz, Director
Copper Division
WPB Dept. 7300

Big Beam

..TODAY'S AND TOMORROW'S EXCEPTIONAL

SALES OPPORTUNITY

THE *Searchlight* WITH THE FUTURE

America's Finest

PORTABLE ELECTRIC RECHARGEABLE

SEARCHLIGHT

Recharging is very simple . . . No need to remove battery from container

• To re-charge from A. C. current, insert D. C. plug of charger into receptacle installed in the lamp head and the other plug of the charger into 110 volt A. C. socket. Can also be charged from D. C. lighting circuits without using a charger if sufficient resistance is placed in series in the circuit. Charging switch can be furnished whereby lamp battery can be re-charged from auto, truck, tractor, or any type of generator. Storage battery is a 15 plate, 26 ampere-hour heavy-duty type with rubber and wood separators.

We have been devoting our efforts and facilities almost exclusively to war needs and while doing this, discovered many new and hitherto unthought of uses—industrial and commercial—for our BIG BEAM Portable Electric Rechargeable SEARCHLIGHT. These uses open up amazing new markets for present and future good business. We suggest that you send for our NEW Catalog which gives complete details as to markets, prices, etc., and study it — help your customers to get the benefit of our experience and research—get ready now for the swing to normal consumer needs.

• *Sold thru Wholesalers*

U-C LITE MFG. CO.

11 EAST HUBBARD STREET

Chicago 11, Illinois

WHOLESALER'S SALESMAN NEWS

Surplus Goods Disposal Plan Ok's Price Ceilings, Bars 'Specs'

Treasury head outlines methods of releasing surplus consumer goods. Says aim of plan is to provide controlled flow of goods to manufacturers and jobbers at ceiling prices

THE principle by which the Treasury Department's new surplus commodity disposal division will govern disposal of surpluses of Government-owned consumer goods, was outlined to the press recently by Ernest L. Olrichs, who will head the division.

Intention of trying to keep surplus goods out of the hands of speculators and promoters was promised by Mr. Olrichs. He said his division would sell the surplus goods at ceiling prices to manufacturers, jobbers or other distributors as seemed best. The division would offer the goods in such a way as not to spoil the market, and that in connection with such control, the agency had the authority to negotiate sales, to accept bids or to decline to sell.

The type of goods which Mr. Olrichs division will sell will be the type that reaches the public through retail stores. It will include some 151,000 different kinds of articles in fifty-seven classifications.

At the moment, only between $35,000,000 and $40,000,000 worth of such goods are available for disposal, but it is expected that the total figure will be many times greater. Most of the goods are owned by the Army and Navy. When they, or other government agencies, declare such goods surplus, other Government agencies are given 21 days in which to buy them. After that time they become surplus goods for disposal through trade channels and become the new surplus goods division's immediate concern.

In selling these surplus goods the Treasury Department's division will first test the market to see how much of the goods it can stand without becoming upset. Right now, with such serious shortages in most consumer goods, the market can stand great amounts and the division feels that drawings may have to be made to see who gets the limited supply. Mr. Olrichs said that plenty of publicity, even to the point where his office will operate as sort of "a goldfish bowl", will attend all negotiations and transactions.

MINSTREL SHOW by the Electrical Association of Detroit brought out much hidden talent in the motor city's electrical industry. A cast of 61, assisted by orchestra, played to two capacity houses of 1200 each. Contractors, manufacturers, wholesalers, engineers, wiremen, and utility men put aside their conflicting problems and joined in the frolic. WHOLESALER'S SALESMAN *is indebted to its friend D. Lyle Fife, Detroit wholesaler and retiring NEWA president, for the above picture and the report of the show.*

NEMA Starts Aircraft, Electronics, Sections

In a move designed to make available the facilities and the experience of the electrical manufacturing industry to both the aircraft and the electronics industry, two special sections of NEMA have been formed.

Member companies of NEMA producing electrical equipment for use in aircraft have formed the Aircraft

Sound the Alert!

MANAGEMENT
LABOR

—for the 5th War Loan drive during June and July. The need for the 5th War Loan is immediate, crucial. For impending events may make the 5th the supreme financial effort of the war.

The U. S. Treasury has set the overall goal at $16,000,000,000 — $6,000,000,000 from individuals alone. This is the biggest sum ever asked of the American people—*and it must be raised.*

That's why the U. S. Treasury asks Management and Labor to sit down together and organize—NOW!

For organization—good organization—has been responsible for the excellent showing of the payroll market. And its most important single superiority has been personal solicitation—desk to desk, bench to bench, machine to machine personal solicitation. 71% of all persons on payroll deductions were solicited for the 4th War Loan.

Now, to personal solicitation, add the sales incentive of a definitely established plant quota. Build your campaign around a quota plan. Set up departmental goals. Stress percentage of participation figures. Stimulate group enthusiasm.

In planning your quota campaign, work in close cooperation with the Chairman of your War Finance Committee. Everything is set to make the 5th War Loan drive a huge success—with your help!

(Note: You've read this message. If it doesn't apply to you please see that it reaches the *one* person who can put it in action!)

Here's the Quota Plan:

1. Plant quotas are to be established on the basis of an *average* $100 *cash* (not maturity value) purchase per employee.
2. Regular Payroll Savings deductions made during the drive accounting period will be credited toward the plant quota.
3. 90% of the employees are expected to contribute toward raising the cash quota by buying extra 5th War Loan Bonds: 1—Outright by cash. 2—By extra installment deductions. 3—By extra installment deductions plus cash.

Example: **JOHN DOE Mfg. Co.** — 1,000 Employees

1,000 employees x $100 Regular Payroll deductions during the eight weekly payroll Accounting Periods of June and July = $100,000 Cash Quota

30,000
$70,000 (to be raised by sales of extra Bonds to at least 900 employees)

ORGANIZE • SOLICIT • DELIVER

The Treasury Department acknowledges with appreciation the publication of this message by

WHOLESALER'S SALESMAN

★ ★ *This is an official U. S. Treasury advertisement—prepared under the auspices of Treasury Department and War Advertising Council.* ★ ★

Electrical Council. N. J. MacDonald, vice-president of The Thomas & Betts Co., Elizabeth, N. J., was elected chairman of the council by representatives of the forty-five companies already holding membership in the Council at a business meeting held in Chicago on April 26 in connection with the NEMA Spring Meeting.

The Electronics Section of NEMA has been formed primarily to provide wise counsel and guidance and assure healthy development of the electronic industry. This section has twenty member companies and is organized along lines conventional in NEMA. The basic purposes of the group are:

a. The standardization of tubes and apparatus.

b. To serve, within NEMA, as a focal point of matters concerning electronics.

c. To promote an increasing use of electronic methods in industry.

In forming the Aircraft Electrical Council, NEMA is recognizing the special factors of design and application which characterize aircraft uses of electrical equipment, NEMA announced. Accordingly, it said, the working plan of the council will be flexible and efficient, providing a tempo and an intensity of action dictated by the specific requirements of the individual projects.

Assisting Mr. MacDonald in his direction of the activities of the council will be: H. W. Clough, Belden Manufacturing Company, vice-chairman, and W. H. Eldredge, The Holtzer-Cabot Electric Co., vice-chairman.

Heading the activities of the electronics section as chairman is H. J. Hoffman, sales manager, power tube division, Machlett Laboratories, Inc.

Wholesaler Buys Two Buildings

Two business blocks, one in Rochester, N. Y., and another in Buffalo, have been purchased by the Wehle Electric Company, electrical wholesalers of Binghamton, and other upstate New York cities.

Edwin C. Wehle, president-treasurer of the company said that the company has already moved into the Rochester building where more than $2000 has been spent in remodeling. This building, as well as the one at Buffalo, are located centrally in business sections and have private parking facilities.

Approximately $25,000 was the sale price on each building, according to the announcement. It was said that more than $14,000 will be spent in remodeling the Buffalo property.

R. J. Wehle is manager of the Buffalo branch and Norman A. Ester is manager of the Rochester office.

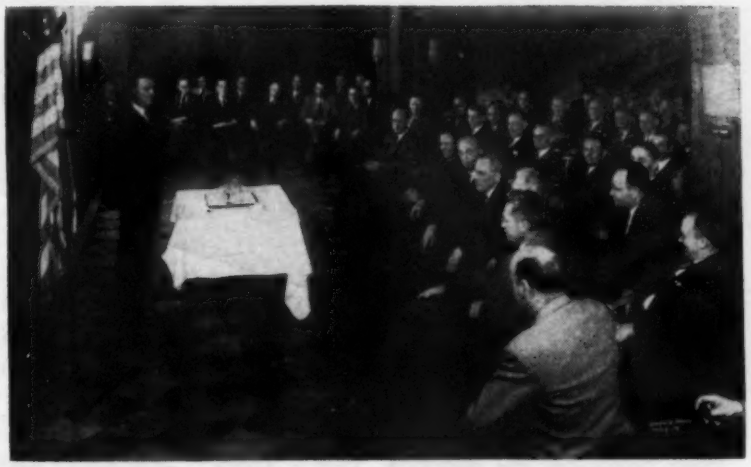
Flatiron Program Extended Further

An additional 376,768 electric flatirons were authorized late last month by the War Production Board as part of its program to provide 2,000,000 irons by the end of the year. Production quotas for this additional number were assigned to eight new companies.

At the same time, the War Production Board warned prospective buyers of irons not to expect them in stores until "early Fall." About three months will be required for manufacturers to obtain their materials and to set up their production lines, it was explained.

More than 97 percent of the new production will be household models.

(*Continued on page* 112)



***CONCLUDING MEETING** of the Cooperative Industrial Lighting Activity sponsored by the Lighting Equipment Manufacturers group of the Electrical Association of Philadelphia, held recently, brought turn-out of more than 100 representatives of the participating groups. It was announced at the meeting that the activity resulted in the sale of 15,633 units at a value of $400,000. John A. Morrison, managing director of the association, presided at the meeting.*

***WHOLESALER'S EXHIBIT** by Muntz and Lea Co., Rockford, Ill., at the meeting of the American Society of Tool Engineers in that city recently. Left to right: Leo Rokusek, salesman for Muntz and Lea; J. K. McKnight, salesman for Allen Bradley Co.; Jack H. Muntz, manager of Muntz and Lea; F. K. Bailey, salesman for Muntz and Lea; Geo. H. Schubert, salesman for BullDog Electric Products Co.; and Frank Currie, salesman for Pyle National Company.*

TO *Efficient* AND *Effective* INDUSTRIAL LIGHTING

Today it is a simple matter to be sure of dependable design and construction in industrial lighting fixtures. Look for the RLM Label. It certifies that the unit has been made in accordance with RLM specifications, under the rigid system of inspection maintained by RLM Standard Institute.

The RLM Standard Institute does not manufacture lighting equipment. It is a non-profit organization, which operates to develop and promulgate specifications for the efficient performance of industrial lighting equipment.

The RLM LABEL is a certificate of performance to these specifications certified by an independent testing laboratory. It has come to symbolize these four essentials of a good industrial lighting installation: (1) Engineered Lighting, (2) Economy through More Light At No Extra Cost, (3) Low Maintenance Cost.

For dependable guidance on vital construction and performance factors for both Incandescent and Fluorescent Lighting Units, write for RLM Standard Specifications. Address your request to any manufacturer utilizing RLM inspection and certification, or direct to RLM Standards Institute.

The Letters RLM Stand for Reflector and Lighting Equipment Manufacturers

RLM STANDARDS INSTITUTE
INCORPORATED

307 NORTH MICHIGAN AVENUE • SUITE 420 • CHICAGO 1, ILLINOIS

NEW PRODUCTS you can SELL

LIGHTING PANELS

Lighting panelboard has drip proof top and is built to meet Naval shock-resisting specifications. Branch circuits have 30 ampere, 250 volt, heavy duty tumbler switches, available in 1, 2 or 3 pole or combinations. Mains can be either 2 or 3 wire, 125/250 volts a.c.-d.c. Square D Company, Detroit, Mich.

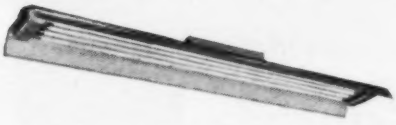
When writing mention WHOLESALER'S SALESMAN

SEARCHLIGHT

Incandescent marine searchlight suitable for use on small or medium-sized ships is obtainable in 12, 18 and 24-inch sizes. Mountings are available in pilot house control, high pedestal, low base and stanchion types. For continuous service, the 12-inch searchlight will take a 600-watt lamp, the 18-inch model up to 1500 watts, 24-inch searchlight up to 2000 watts. General Electric Company, Schenectady, N. Y.

When writing mention WHOLESALER'S SALESMAN

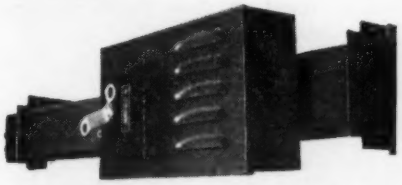
COLD CATHODE LIGHTING UNIT



No. 2081 Kold-Volt cold cathode lighting unit, for general industry use, operates from ordinary 110-125 volts, 60 cycle a.c. It uses 4 cold cathode low voltage fluorescent tubes. May be surface or suspension mounted, individually or in continuous rows. Mitchell Manufacturing Co., Chicago, Ill.

When writing mention WHOLESALER'S SALESMAN

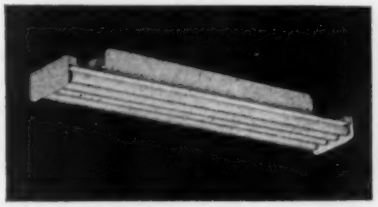
CAPACITOR PLUGS



The capacitor plugs are an integral unit consisting of 60 ampere three pole fusible switches, or 15 to 50 ampere circuit breakers connected ahead of three pole single unit capacitor having discharged resistors. They are made for 230 or 460 volt 60 cycle service in capacitor ratings of 1 to 15 K. V. A. To facilitate pull-chain operation from the floor, the plugs have operating mechanisms of special design placed on the hinged covers over the protective devices. BullDog Electric Products Co., Detroit, Mich.

When writing mention WHOLESALER'S SALESMAN

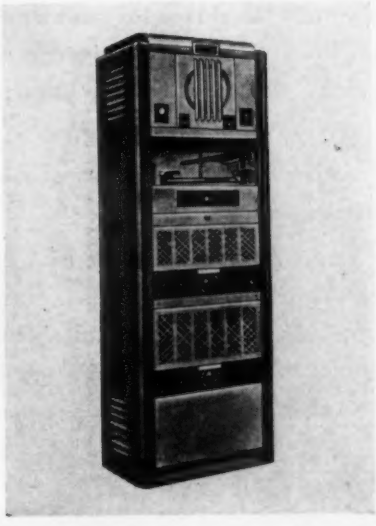
LUMINAIRE



"Ranger" luminaire for four 40-watt fluorescent lamps, designed for both offices and drafting rooms, may be used individually and in continuous rows. It is wired for 110-125 volt, 60 cycle, a.c. current. May also be wired for 220-250 volts. Curtis Lighting, Inc., Chicago 38, Ill.

When writing mention WHOLESALER'S SALESMAN

INTERCOMMUNICATING UNIT



The plant broadcaster operates 20 to 40 loud speakers and covers an area of up to 100,000 square feet. The cabinet requires 22 inches of floor space and comes ready to plug in. Paging calls may be sent over the system while music is being played, by means of an automatic control which decreases the music volume. Operadio Mfg. Co., St. Charles, Illinois.

When writing mention WHOLESALER'S SALESMAN

"Mind If I Wrap These Purchases Together, Mister?

THE ARMY NEEDS OUR PAPER TO SHIP TANKS IN"

Use Less Paper Because

Paper vests have proved excellent for aviators and ground crews as cold protection.

Paper is used for disposable gun covers and ordnance wraps to protect such equipment while making invasion landings.

The Army supplies helmets of laminated fiber for noncombat duty in the tropics.

Many essential airplane parts are fabricated of plastic with a paper base.

Army trucks require 20 pounds of paper for safe delivery.

Use Less Paper These Ways

Sales people should be instructed to change the familiar: "Would you like this wrapped?" a tradition of courteous store service, to something like, "Won't you take this unwrapped, the Army needs our paper?"

Group wrapping should be practiced in every possible instance.

The retailer could devote some of his own advertising space in the local papers to selling the "Let's All Use Less Paper" idea. In these advertising messages he can well suggest the use by the shopper of such things as market baskets and old shopping bags to stretch the supply available.

YES, SIR. Paper-saving is in style these days. Patriotic merchants all over the country are using every trick they can think of to cut down on paper use.

Why? Because they know how much the Armed Forces need paper to protect shipments of weapons, ammunition, food, medical supplies to the invasion forces all 'round the world.

The wise retailer instructs his clerks to save on wrapping paper—to sell customers on the need for such paper-saving.

Yes, and ten to one the smart clerk has figured out a few ideas of his own for helping his store save paper. For all over the country alert store people are finding ways to cut down on the use of paper and paper board.

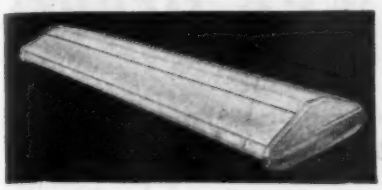
O.K., mister. What are you doing to help this major home-front war effort? Have you checked on the amount of paper used in your business and figured out how to cut it down? Have you met with other conservation-minded merchants in your town to see about organizing a Merchant's Paper Conservation Committee? If not, there's a perfect time to start. And that's right *NOW*.

This advertisement prepared under the auspices of the War Advertising Council in co-operation with the Office of War Information and the War Production Board.

Let's All Use Less Paper

Space for this advertisement contributed by WHOLESALER'S SALESMAN

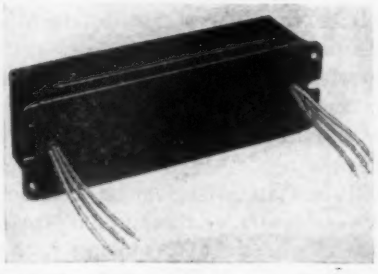
FLUORESCENT FIXTURE



The Excelux luminaire is used with four forty-watt fluorescent lamps. Full screen diffusion is provided through a diffusing-shield which consists of contiguous, multiple prisms. No tools are required for relamping. Edwin F. Guth Co., St. Louis, Mo.

When writing mention WHOLESALER'S SALESMAN

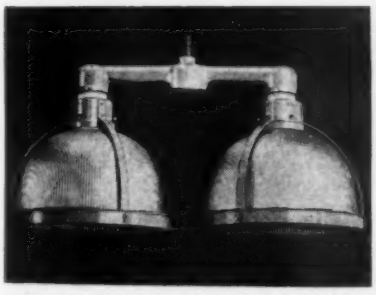
BALLAST



Ballast with bottom leads makes possible direct mounting of this unit on shallow wiring channels no wider than needed to enclose the leads. Available in two-lamp and three-lamp 40 watts, two-lamp and four-lamp 100 watts. Jefferson Electric Co., Bellwood, Ill.

When writing mention WHOLESALER'S SALESMAN

COMBINATION UNIT



Each twin-hanger unit is tapped for ¾-inch conduit stem; is equipped with removable plate to simplify wiring; Mogul sockets, safety holders, appropriate Permaflectors and reflector retaining rings. 500 watt PS-40, and 750 or 1,000 watt PS-52 incandescent lamp, in conjunction with a 400 watt T-16 mercury lamp, with appropriate Permaflector, provide desired light distribution and intensity. Pittsburgh Reflector Co., Pittsburgh, Pa.

When writing mention WHOLESALER'S SALESMAN

"...DOUBLE their WAR BONDS"*

If only the people back there could see where their money is going and doing I bet they would double their War Bonds, and I'm not kidding one bit!

ASSUREDLY if only every citizen could take a jaunt along a battle front, and SEE what our taxes and bonds are purchasing toward Victory — they would double their War Bonds, cheerfully! Yes, CORWICO wires are there, too....

William Ogert of Cornish Wire Co. had a letter from his son, now serving overseas..... part of which is quoted here.

cornish

WIRE COMPANY, INC. CORWICO

15 Park Row, New York City, New York

"Made by Engineers for Engineers"

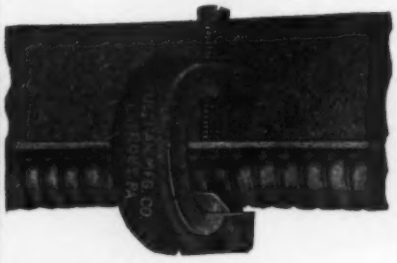
LATROBE

FLOOR BOXES — WIRING SPECIALTIES

PRODUCTS

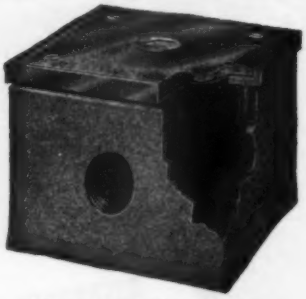
QUALITY THAT LASTS

Time saved in installing Latrobe Products is a major factor of preference—especially in plants where even momentary "down-time" may affect war production schedules. Latrobe Products are safe, too, and long lasting.



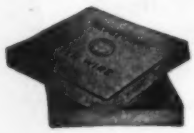
"Bull Dog" Armored Cable Support

For supporting armored cable to steel framework. Light, strong, sure grip. Will not deface surface.



Floor Junction Boxes

This 5" x 5" x 4" Box with adjustable cover is one of a great variety of standard boxes. Special sizes can be turned out promptly.

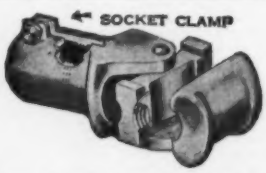


Keystone Fishwire

High quality flat steel wire properly tempered to give stiffness and springiness. Sizes for all power wiring. Packed in cartons.

No. 330 Utility Box

For use in wood floors, baseboards, show windows and other installations free from moisture or mechanical injury. No superfluous parts.



No. 625 "Latrobe" Conduit Bender

Combination ½" and ¾ in. conduit bender with reversible jaw to fit either side. Will not slip nor kink conduit.

"Bull Dog" Insulator Supports

Convenient little clamps of high tensile strength for fastening porcelain or glass insulators to exposed steel framework. Four sizes.

EASILY INSTALLED

FULLMAN

MANUFACTURING CO.

LATROBE, PA.

ECONOMICAL

WPB Orders

Alarm Clock Production Routine Established

The War Production Board announced recently that "Definite routines and procedures for the production and distribution of new spring-driven and electrically-operated alarm clocks have been established in Limitation Order L-275. Manufacturers will be assigned individual monthly quotas for production and delivery of alarm clocks. Production will be authorized so as to avoid increased labor requirements in labor shortage areas. Alarm clocks may not be made in plants where such production would interfere with other war production.

"Only alarm clocks with movements and cases approved by WPB may be made. Approval of models will be based largely on economy of production and minimum use of critical materials. To insure proper distribution, WPB may require manufacturers authorized to produce alarm clocks to sell specified quantities of clocks to non-producing manufacturers who are in a position to facilitate distribution. No preference rating is required for the purchase of alarm clocks."

Copper Division Warns Re: CMP-4 Violations

All copper wire mill warehouses received the following letter from the Copper Division of the War Production Board:

"Subject: Quarterly Identification on Warehouse Delivery Orders

"It has been brought to our attention that a number of Brass Mill and Copper Wire Mill Warehouses are making deliveries of copper products in violation of CMP Regulation No. 4, paragraph (f) (3) (ii) which reads as follows:

"'A warehouse must not deliver any brass mill or copper wire mill product on an authorized controlled material order except *in the quarter for which the allotment appearing on the order is valid.* Orders bearing symbols such as 'MRO' or 'SO' which do not have to bear any quarterly identification may be filled dur-

ing any quarter, but such orders must indicate when delivery is required if for other than immediate delivery.'

"These violations occur because of the confusion arising from the fact that Brass *Mills* and Copper Wire *Mills* are allowed under CMP Regulation 1 to make deliveries on authorized controlled material orders during the 15 days prior to the requested delivery month, provided such delivery does not interfere with delivery of other authorized controlled material orders; and it is incorrectly assumed that the same leeway is permitted to Brass Mill and Copper Wire Mill *Warehouses*. This provision applies *only* to producers and does not apply to Brass Mill and Copper Wire Mill Warehouses.

"Deliveries to fill authorized controlled material orders placed with such warehouses can be made only during the quarter for which the allotment is valid as indicated by the quarterly identification on the order.

"Brass Mill and Copper Wire Mill Warehouses failing to comply with the provisions of CMP Regulation 4, paragraph (f) (3) (ii) are liable to compliance action."

CMP Intermediary Sales Interpreted

The War Production Board, through J. Joseph Whelan, recording secretary, issued the following direction pursuant to CMP Regulation 1:

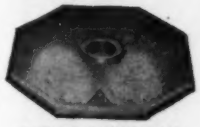
"(a) This direction explains how a person (who is called an 'intermediary' in this direction) acting for either a seller or purchaser, can place purchase orders for steel, copper, or aluminum for delivery to the purchaser. It covers sales of idle or excess inventories as well as sales of controlled materials by a producer or a distributor.

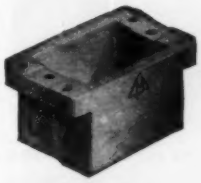
(b) An intermediary receiving an order for controlled materials may order from the supplier the same quantity of material for delivery as directed by the customer, but he must furnish with his own purchase order a copy of the endorsement received from the customer, including the customer's name and CMP allotment number of symbol, or a copy of the specific permission for the purchase or sale of the ma-

Save with ILLINOIS All Porcelain WIRING SYSTEMS....

★ USE LESS VITAL MATERIALS
★ DO JOBS IN LESS TIME
★ CUT MAINTENANCE

OUTLET BOXES AND COVERS





SWITCH BOXES AND COVERS

TOGGLE SWITCH PLATE

For the customer, porcelain protected wiring systems mean permanency of installation, economy, safety, dependable service where dampness and fire hazards are prevalent.

Illinois all porcelain wiring systems are adaptable to practically all wiring plans and layouts—they are easy to install and can be installed without grounding.

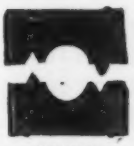
Porcelain is not a critical material—use it for your next installations.

★ SAVES VITAL MATERIALS
DO JOBS IN LESS TIME
CUT MAINTENANCE ★

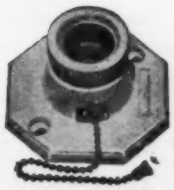
Bull Dog Trade Mark Registered
Look for this Trade Mark

STANDARD TUBES

STANDARD KNOBS



CLEATS



LAMP HOLDERS

ILLINOIS ELECTRIC PORCELAIN CO.
MACOMB, ILLINOIS

KLEINS

TOOLS YOU CAN RELY ON

WHEN you read of a new Naval victory—a new Army advance—you know that Klein pliers are helping our fighting forces get their job done.

Today, the demands of war for quality tools, both on the battle-fronts abroad and on the industrial front at home, are so great that many Klein users are forced to wait until Victory before they can again secure the tools they need.

The name Klein today still stands for the highest quality in pliers, just as it has for nearly a century.

And here at Mathias Klein & Sons we are producing more of these quality tools than ever before.

When the war is won, this production will again assure you a constant supply of pliers and wrenches, grips and climbers, belts and straps—the same quality tools and equipment that have served the electrical industry "since 1857."

ASK YOUR SUPPLIER
Foreign Distributor:
International Standard Electric Corp., New York

This book on the care and safe use of tools will be sent on request.

Since 1857

Mathias KLEIN & Sons
Established 1857 — Chicago, Ill., U.S.A.
3200 BELMONT AVENUE, CHICAGO 18, ILLINOIS

terial granted by the War Production Board.

"(c) A purchase order so placed may, but need not, be accepted by the supplier. If accepted, it shall have the same status under War Production Board orders and regulations as if placed directly by the customer. If the supplier rejects such an order when he has material (or open space on his production schedule) available to fill it, he must immediately notify the intermediary in writing that he is prepared to fill the order direct from the customer or through another person.

"(d) The intermediary may not, at any time during such a transaction, take title to the material. However, if under applicable laws the intermediary may pay the supplier and invoice his customer without himself taking title to the material, this direction permits him to do so.

"(e) This direction does not apply to copper controlled material producers or warehouses when purchasing copper as intermediaries. The procedure to be followed by a copper controlled material producer or warehouse when purchasing copper as an intermediary is described in paragraph (f) (2) of CMP Regulation No. 4, and in Direction No. 9 to CMP Regulation No. 1."

Farm Operation Supplies Made Available on AA-2X

Amendments have been made to Priorities Regulation 19 to aid farmers in obtaining available supplies necessary for farm operation, the War Production Board announced on May 11.

The amendments also expand the list of items affected, and raise the priority of certificates covering those items from AA-5 to AA-2X, with the exception of a few building materials.

Under the terms of the amended regulation, dealers are required to give farmers preference in the purchase of all listed items, upon written certification by the farmer that the supplies covered by the order are "needed now and will be used for other than household purposes in the operation of a farm". Such certification will carry the priority of AA-2X.

Dealers may use such farmers'

certificates to replace merchandise sold, or to replace supplies for which they have orders. However, the amended regulation does not provide a priority rating which can be extended by the wholesale supplier to the manufacturer, WPB states.

Wholesalers should apply to WPB on Form WPB-547 for ratings to be used in obtaining supplies. The War Production Board states that in some cases it may be able to extend special help on WPB-547 to suppliers and direct-buying dealers serving the farm trade.

Fuse Order Explained

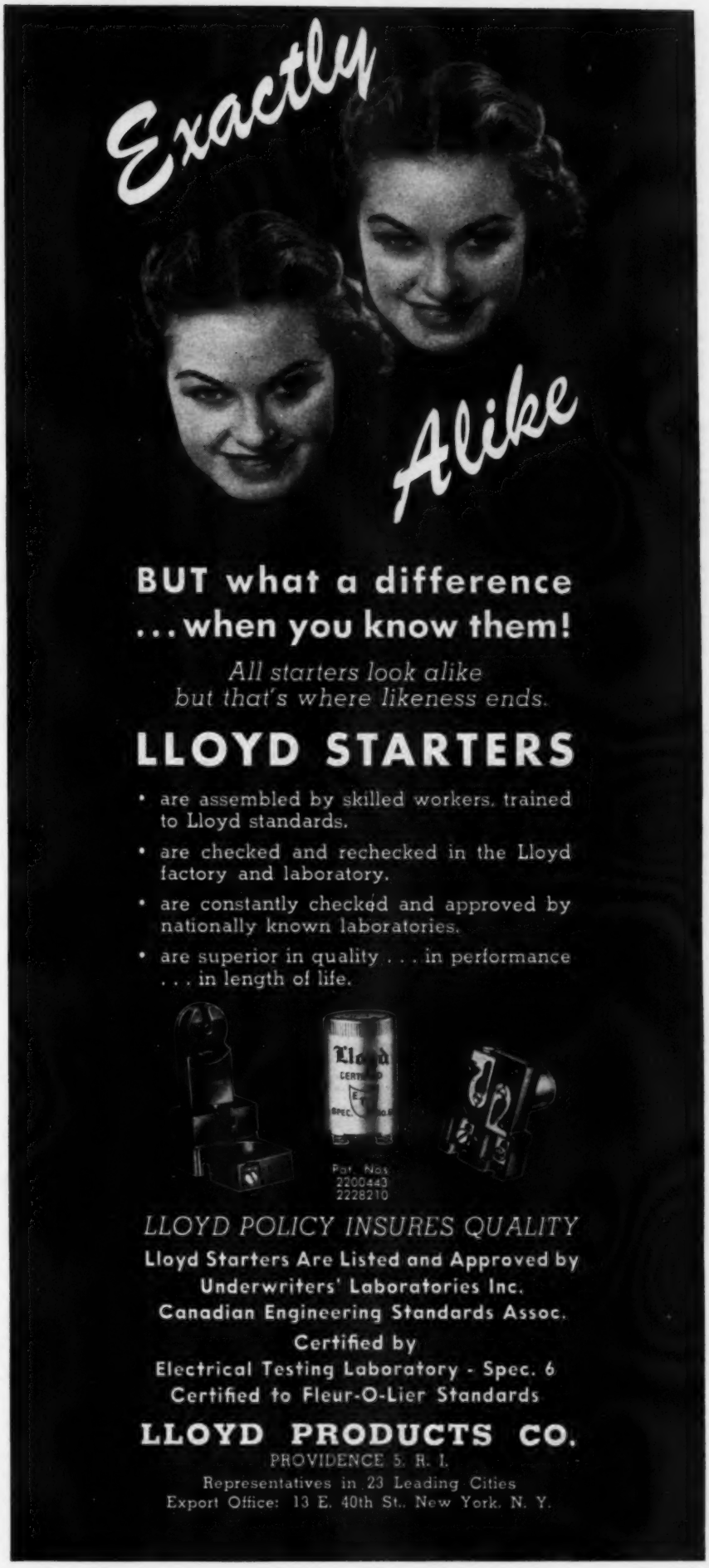
"The term 'time delay nonrenewable cartridge fuse' as used in paragraph (b) (2) (iii) of Limitation Order L-161 means a nonrenewable cartridge fuse employing a dual element, one of the elements being a fuse link which opens on a short circuit and the second element, in series with the first, acting as a thermal cutout to open the circuit on prolonged overloads only. The term does not include nonrenewable cartridge fuses which do not employ a dual element." The above was released by the WPB recently as Interpretation 2 to L-161.

P.R. Regulations Revised by WPB

Basic rules governing the use of preference ratings have been revised to bring them up to date and make certain operating changes, the War Production Board announced on March 22nd.

In the future, all defense orders will be rated at least AA-5, WPB said. Defense orders are defined in Priorities regulation No. 1 as purchase orders calling for delivery to or for the account of the Army, Navy, Maritime Commission and other Government agencies concerned with the war effort or Lend-Lease orders. Formerly, all defense orders that were not specifically assigned a higher rating were rated A-10.

The amended regulation provides that in the future no ratings lower than AA-5 will be assigned by WPB. However, any outstanding ratings that were assigned prior to


Exactly
Alike
BUT what a difference
...when you know them!
All starters look alike
but that's where likeness ends.
LLOYD STARTERS
• are assembled by skilled workers, trained to Lloyd standards.
• are checked and rechecked in the Lloyd factory and laboratory.
• are constantly checked and approved by nationally known laboratories.
• are superior in quality . . . in performance . . . in length of life.
Lloyd
Part Nos
2200443
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LLOYD POLICY INSURES QUALITY
Lloyd Starters Are Listed and Approved by
Underwriters' Laboratories Inc.
Canadian Engineering Standards Assoc.
Certified by
Electrical Testing Laboratory - Spec. 6
Certified to Fleur-O-Lier Standards
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• IMPERIAL NEOPRENE JACKETED PORTABLE CABLES •

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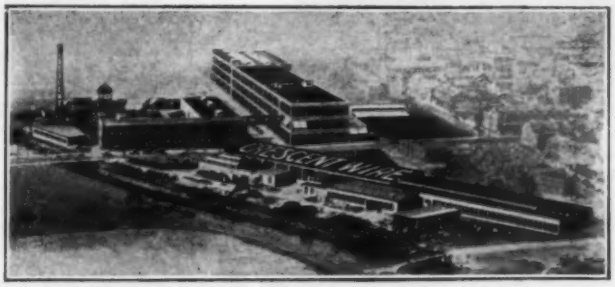
CRESCENT

NATION WIDE ORGANIZATION



originating at this factory at Trenton, N. J., serves the nation from coast to coast. Wherever you are located, these Representatives stand ready to assist you:

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R. H. Cupples	324 First St. North	*Minneapolis, Minn.
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Crescent Insulated Wire & Cable Co.	298 Duquesne Way	*Pittsburgh, Pa.
Edgar E. Dawes	312 Rhodes Building	Atlanta, Ga.
Leigh A. Doxsee Co.	Rm. 307, 4030 Chouteau Ave.	St. Louis, Mo.
Electric Agencies	562 First Ave. South	Seattle, Washington
Electrical Sales Co.	111 Cheapside St.	Baltimore 2, Md.
Paul Hogan, Jr.	305 Levert Bldg. 823 Perdido St.	New Orleans 12, La.
W. F. Howe & Co.	2627 McGee St.	Kansas City, Mo.
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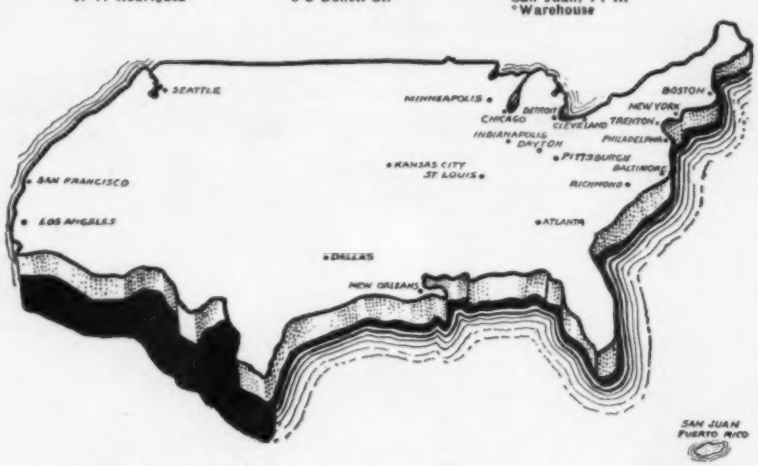


CRESCENT INSULATED WIRE & CABLE CO.

TRENTON, N. J.

CRESCENT

WIRE and CABLE

JOBBER CO-OPERATION — A PERMANENT POLICY

• RUBBER POWER CABLES • VARNISHED CAMBRIC CABLES •

• ARMORED CABLE • CRESFLEX NON-METALLIC SHEATHED CABLE • SERVICE ENTRANCE CABLE • BUILDING WIRE • PERMACORD • LEAD-ENCASED AND PARKWAY CABLES • SYNTHOL WIRES • WELDING CABLES • SHIPBOARD CABLES

March 18 and are lower than AA-5 may continue to be used.

The changes in Priorities Regulation No. 1 as amended March 18 also specifically indicate that any person who receives a rated order and is unable to fill it on the required delivery date must notify his customer of the earliest date on which he will be able to fill the order. In such cases, the person who received the order has the choice of two actions: (1) to reject the order and notify his customer when he would have been able to make delivery, or (2) to accept the order for the earliest delivery date he expects to be able to meet and notify his customer of such date. This customer notification provision has been inherent in WPB policy for some time, but it has never been spelled out in Priorities Regulation No. 1. The amendment specifically includes the requirement in the regulation.

Rated orders may be rejected under the terms of Priorities Regulation No. 1, if the person placing such orders is unwilling to meet established prices and terms of sale of the person with whom he has placed the order. The amendment provides that suppliers must quote established terms and prices upon request of persons who want to place rated orders with them unless such a quotation would involve detailed engineering or accounting work. In such cases, the supplier may quote his best estimate without such work and point out that it is not binding. However, a supplier need not quote his prices and terms to a person with a rating if he would not be required to accept such a person's rated purchase order and knows that he would not accept it if it were served on him.

Radio Cabinets, Sets Order Interpreted

The WPB has issued the following interpretation of Section 3289.31 of General Limitation Order L-265:

"(1) Radio cabinets, regardless of the material from which made, are included within the definition of "electronic equipment," in paragraph (a) (3) of the order; and are subject, therefore, to all of the provisions of the order. A radio cabinet is any type of cabinet designed to contain a radio, even though other things may also be contained in it.

"(2) Paragraph (c) (1) (i) provides in part that the provisions of the order do not apply to the transfer of "radio receiving sets" which were produced and designed for home use and which were completely manufactured on or before April 24, 1943. There seems to exist on the part of some persons the erroneous impression that if a set was partly assembled or almost complete on or before April 24, 1943, it could be finished and transferred free of the restrictions of the order. Some persons have even taken the position that if parts were on hand on April 24, 1943, their assembly into a set and its transfer thereafter were not subject to the provisions of the order. Both such ideas are definitely mistaken. The term 'radio receiving set,' as used in paragraph (c) (1) (i), means a home radio receiver which was completely assembled (including cabinet installation), and ready for operation on or before April 24, 1943. If any part (such as cabinet, speaker or transformers, etc.) has been added or has to be added to the set since that date and before its transfer, then its transfer is not exempt from the provisions of the order."

Set Ceiling Prices for "Baby" Washers

Sales of used portable or "baby" Washing machines were placed under the coverage of GMPR, which fixes prices at March, 1942, prices Persons selling other "non-typical" used models will apply to OPA in Washington for a maximum price.

Zinc Made Available For Many Products

The restoration of the use of zinc in the manufacture of many finished products has been provided for by a recent action of the War Production Board in amending Conservation Order M-11-b.

It was stated that this action is in line with the general policy of the board to permit the use of scarce materials if the result is to conserve material in greater demand, effect a saving in manhours, or enable the manufacture of a better product.

You can fill orders NOW for FLASHLIGHT BATTERIES

★ Guaranteed for Six (6) Months

★ Fits Standard Flashlight Cases. Takes the place of TWO 1¼" Size D Dry Cells.

IDEAL *Rechargeable* BATTERIES

No Shortage of Ideal Rechargeable Storage Batteries for Flashlights. Supply your customers, now, with these batteries that always give a bright light and can be recharged regularly from any light socket. Now in fifth year, used in thousands of plants. Guaranteed. Jobbers now handling these Flashlight Storage Batteries are repeat-ordering fast—making good profit, big-volume sales. One IDEAL Storage Battery can outlast 400 Dry Cells.

IDEAL CHARGER

Plugs into any light socket

IDEAL Flashlight Batteries can be recharged over and over again. Chargers available in single (AC only), 6-gang, and 12-gang types (AC or DC as required).

PROMPT DELIVERY

Literature, Envelope Stuffers, Price Sheets and Counter Display Cards *sent immediately upon request.*

Sales Offices in all Principal Cities
In Canada: Irving Smith, Ltd., Montreal, Quebec

IDEAL *Sycamore*
★ IDEAL COMMUTATOR DRESSER CO ★

1047 PARK AVE. SYCAMORE, ILL.

Dependable Protection

MONARCH FUSE COMPANY, LTD.

116 E. FIRST STREET JAMESTOWN, N. Y.

News

(*Continued from page* 101)

About 90 percent will be automatic and ten percent non-automatic.

Production quotas will be assigned to additional manufacturers as their ability to produce irons without using labor or facilities needed for war production can be substantiated, the agency said.

Announce Packaged Cold-Cathode Unit

One of the first steps in the opening up of a wide market for cold-cathode lighting in the commercial and industrial field has been the change from "custom built" units to standard lighting units.

This has been accomplished by one manufacturer with the announcement of a new cold-cathode fluorescent industrial fixture which will be available to the electrical field as a "standard package".

In appearance and in general lighting qualities, the cold-catode lamps used in this new fixture, which has been called the "Kold-Volt" and announced by the Mitchell Manufacturing Co., Chicago, are similar to the conventional "F" type fluorescent lamps, except that they are 7 feet 9 inches long, 1 inch in diameter, and employ a different type of cathode at the tube ends.

The manufacturer has announced the following advantages for this new type of lamp: instantaneous starting without the need of separate starters; lamp life expectancy of about 10,000 hours; lower temperature operation; operation on regular 110–125 volt A. C. current; reduction in surface brightness because of the length of the tube.

Champion Lamp Opens N. Y. Sales Office

In anticipation of increased post-war demand for its products, the Champion Lamp Works of Lynn, Mass., has moved its New York offices to larger space in the Graybar building, 420 Lexington Ave., New York.

The personnel as well as the space and the facilities of Champion's office is being increased to handle the large expected post-war demand for the company's fluorescent and incandescent lamps.

W. K. BINFORD, who has joined the sales staff of the Johannesen Electric Company, electrical wholesalers of Greensboro, N. C., has ten years experience in selling electrical equipment through the South.

A-W Reporter To Feature Post-War

Reports of activities for post-war home building operations now under way in electrical centers throughout the nation, will be the feature in the key issue of the Adequate Wiring Reporter, according to announcement from the National Adequate Wiring Bureau.

A special section will be devoted exclusively to news and pictures of the "Post War Home Planners" Clubs and Institutes.

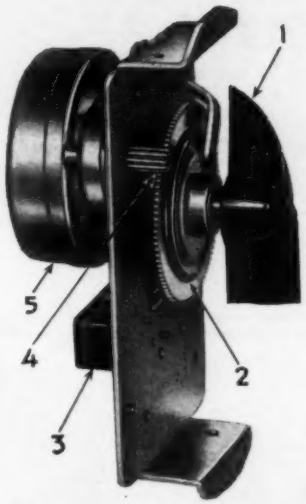
Additional copies of this special issue are being offered by the Bureau at 5 cents each. Wholesalers who wish extra copies should send their remittance to the National Adequate Wiring Bureau, 155 E. 44th St., New York 17, N. Y.

Scott To Head Graybar Los Angeles

S. W. Scott has been appointed district commercial manager of Graybar at Los Angeles, succeeding W. E. Guy who has become district commercial manager at Chicago.

Mr. Scott, a native of Arizona, joined Graybar in 1928 as a supply salesman in Los Angeles. He later served as manager of the merchandise department and as hearing aid specialist at Los Angeles.

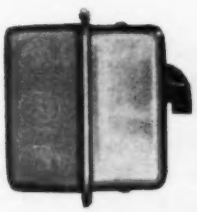
Another Paragon Timer achievement!



2400 Series
For flush mounting

2900 Series
Wall mounting

2500 Series
Enclosed type



2500 Series
Side view
Mounts on handy boxes

Here's a notable development in automatic electric timers . . . which includes several distinct engineering and operating improvements.

ENGINEERING FEATURES

1 The setting knob is directly connected thru the switch operating cam; unit does *not* set thru a clutch; this provides positive switch action.

2 All energy required to operate switch itself is built up by manually setting pointer. Motor and clutch thereby relieved of all drag.

3 Switch—single pole, double throw, 1000 watt capacity, fully enclosed. Underwriter's approved.

4 Only 2 exposed gears—motor pinion and wheel. Precision hobbed.

5 Motor—self starting, slow speed, industrial type synchronous, completely sealed.

6 No energy is required of clock motor to trip switch at end of present time.

7 Nine time ranges from 0 to 14¼ seconds through 0 to 9¼ hours. Available in all types of enclosures.

8 All parts rust proofed and protected against corrosion.

NUMEROUS APPLICATIONS

Adaptable to any manually preset application with automatic switch operation at end of time cycle, such as plastic molding, rubber curing, batch mixing, heat treating, enamel baking, liquid agitation, light exposure—photographic, therapeutic, blue printing, infra-red drying,—blower operation, pump operation, conveyor operation and food processing.

PRECISION BUILT: This and every other Paragon unit is precision built, simple, accurate, reliable, modern and reasonably priced. Made by an organization of designers and engineers, growing since 1905.

SEND FOR BULLETIN . . . ***containing complete construction and installation data.***

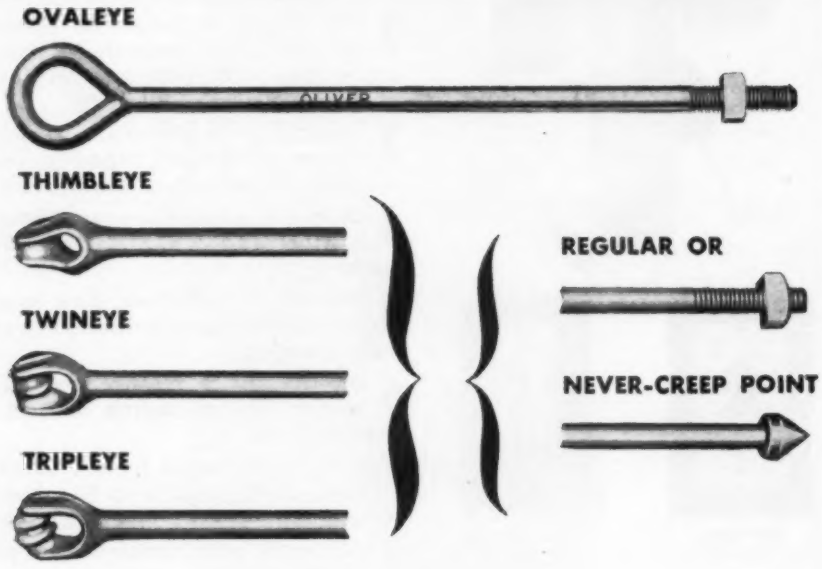
PARAGON ELECTRIC COMPANY
403 S. DEARBORN ST. • CHICAGO 5, ILL.

Paragon Chicago
BUILDERS OF ELECTRICAL EQUIPMENT . . . SINCE 1905

OLIVER

ANCHOR RODS

PROFITABLE ITEMS FOR YOUR LINE!



Oliver Anchor Rods are made in sizes and types for use with all varieties of expanding and cone anchors, and some screw anchors.

Sizes of Oliver Anchor Rods are: diameters, ½ inch to 1¼ inches; lengths 5 to 10 feet. All are of drop forged steel, heavily galvanized.

The thimbleye, twineye and tripleye construction protects the strand, makes thimbles unnecessary and simplifies erection. Flat top aids driving. Write for full information.

OLIVER
IRON AND STEEL
Corporation

SOUTH 10th and MURIEL STREETS · PITTSBURGH 3, PA.

L. M. BURDICK, manager of Butte, Montana, branch of GE Supply Corp., absorbs wiring code data from H. G. Knoderer, commercial wiring engineer, GE Bridgeport, and Lester Johnson, wiring specialist for GE in Salt Lake City. They were attending the combined IES, Inspectors, and Electrical Leagues.

Faraday Corporation Replaces Schwarze

Formation of the Faraday Electric Corporation, Adrian, Mich., as a consolidation of the firms of Stanley and Patterson and the Schwarze Electric Company, has been announced by Lewis J. Stern.

The Schwarze Electric Company had acquired the assets of the Stanley and Patterson Company in 1938. The new combination was taken over by the American Industries Management Company of Chicago in February, 1943.

The company will continue both a Schwarze and a Stanley and Patterson division for the manufacture of signal systems.

The officers elected to head the new corporation are: E. I. Kleinman, president; J. S. Ackerman, vice-president; J. M. Doroshaw, vice-president; L. J. Stern, executive vice-president; P. H. Hill, vice-president in charge of sales.

Eugene Card Joins Sackett Electric Co.

Eugene Card, who for several years has been upstate representative for the Wiremold Co., Hartford, Conn., has been appointed sales manager of the H. I. Sackett Electric Co., Buffalo, N. Y.

Mr. Card's territory in eastern New York will be handled by George Sundstrom, manager of the New York City district of the Wiremold Company. J. E. Love, district manager in Pittsburgh will take charge of the western New York territory.

Canadian Wholesaler Appoints New Manager

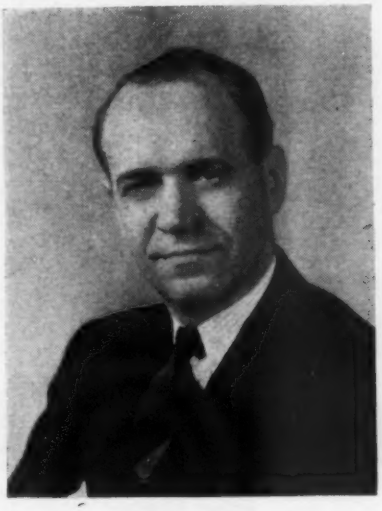
Appointment of H. Reid as district manager of the Northern Electric Company, Winnipeg, Manitoba, has been announced by M. K. Pike, vice-president of the company.

Mr. Reid was born in Blair Gowrie, Scotland, in 1898, and came to Canada at the age of 14. He served in the Royal Flying Corps during the first World War.

In 1927, Mr. Reid was employed by the Northern Electric Company as a salesman in Regina. He was later transferred to Winnipeg and was appointed district merchandising manager in 1934. In 1942 he was made assistant district manager, and is now district manager at Winnipeg in the place of W. T. Hunt who has gone on leave of absence prior to pension.

New Factory For Talk-A-Phone Co.

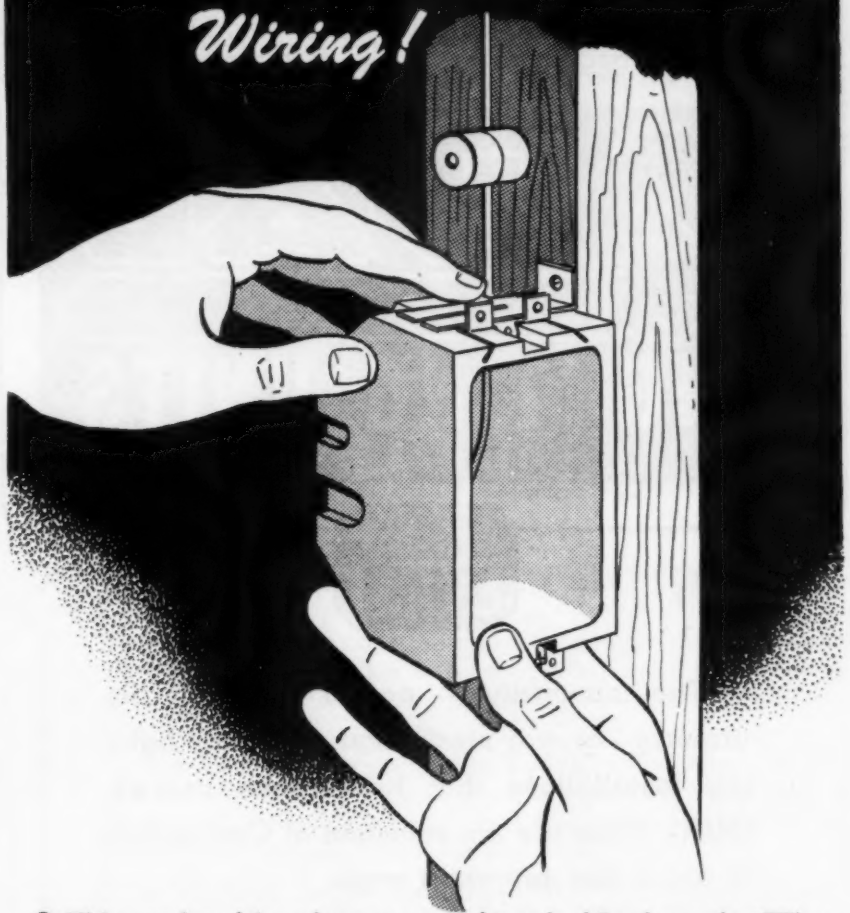
The Talk-A-Phone Manufacturing Company of Chicago has occupied new factory and office space at 1512 South Pulaski Road, Chicago 23, Ill. The new home provides the company with added facilities for the manufacture of various types of inter-communication equipment, phonographs and record changers.



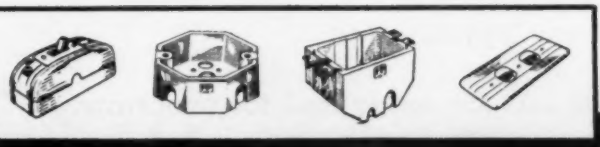
JOHN H. ASHBAUGH, newly-appointed vice president of the Westinghouse Electric and Manufacturing Company, was formerly manager of the Electric Appliance Division of the company. He has been with Westinghouse since 1918, starting as a student engineer in East Pittsburgh.

SIMPLEST INSTALLATION

with Porcelain Protected Wiring!

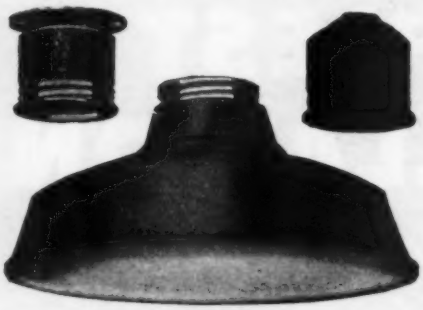


● This war has driven home an important lesson about wiring—the *simplest* way is the *best* way! This means that wiring without "frills"—by using Porcelain Protected Wiring—does a far better job from the standpoint of simple installation, low cost, safety, long life and dependability. It's the *right* method for those who "Wire Today for Tomorrow's Loads". Meets all requirements of directives calling for non-metallic wiring and non-metallic wiring materials. Talk it over with your community's efficient watchdog of fire prevention—the Electrical Inspector. Write for manual.



PORCELAIN PRODUCTS, Inc.
FINDLAY, OHIO

Wire Today for Tomorrow's Load



No. 1184-M
RLM THREADED
DOME REFLECTOR

ADJUSTABLE PORCELAIN
ENAMELED FLOODLIGHT

QUAD

LIGHTING UNITS

RLM

★ The immensity — not to speak of the urgency—of war production, demands lighting installations that have been proved. QUAD Units are the selection of Contractors to aid in this important work.

★ The QUAD line of Industrial Lighting Fixtures—RLM and other porcelain enameled units—fills all high intensity requirements. The need for so many additional installations necessitated by the war program means that QUAD is the line to take care of any lighting need.

QUAD . . . for today and for tomorrow.

●

QUADRANGLE MFG. COMPANY

Mfgrs. of Incandescent and Fluorescent Lighting Equipment

32 SO. PEORIA ST. CHICAGO, ILL.

To Head Eveready Atlanta Sales

John L. Mullen has been appointed Atlanta district sales manager of the company's "Eveready" division. He succeeds Frank Warnell who has held that position since 1938 and who has been promoted to the general sales department in New York City.

Julian Hawks Joins Appleton Electric Co.

Julian Hawks, who has been well known to the wholesaling field as chief of the Electrical Section, Wholesale and Retail Trade Division, War Production Board, has joined the Appleton Electric Company of Chicago to serve as eastern manager, according to announcement from Murray Whitefield, vice-president of that company.

Mr. Hawks will have charge of all Appleton business in the eastern district.

Mr. Hawks has been in attendance at several meetings of wholesalers to give the government's interpretation on WPB orders and regulations and has been author of material for WHOLESALER'S SALESMAN.

Before joining the War Production Board in 1942, Mr. Hawks was vice president of the Triangle Conduit &

Julian Hawks

Cable Co., New Brunswick, N. J. Previous to that he was in business as a manufacturer's agent. In 1930, and until 1933, he had organized the Eastern Electrical Wholesalers Association and served as its managing director.

NEW HOME of Dobkin Electrical Supply Co., Chicago, and an over-the-counter view of David Dobkin who heads the concern that is concentrating its wholesaling operations at its new location, 329 West Madison Street. Announcement of Dobkin's purchase of three other Chicago wholesaling concerns was made in February.

"E" Star Awarded To Thos. & Betts

A second star for addition to its Army-Navy "E" pennant has been awarded to The Thomas & Betts Co., Elizabeth, N. J., as a "symbol of appreciation from the Armed Forces for the company's continued untiring effort and support so necessary for Victory," according to the chairman of the Naval Board of Production Awards. The Thomas & Betts Co. manufactures electrical fittings.

This is the fourth time the company has been honored by the government during wartime. It earned the Award of Merit during the first World War.

Wholesaler Promoted At Vancouver, B. C.

Ken M. Pattison has been appointed manager of the Vancouver, British Columbia, branch of Cochrane, Stephenson Co., Ltd., local electrical wholesalers, according to an announcement from L. M. Cochrane, president of the firm.

styling...

...key to customer acceptance

EVER SINCE electric door chimes were first introduced to the nation, Rittenhouse has recognized that smart styling must always be an essential factor in building and holding customer-preference.

It is natural, therefore, that Rittenhouse Chimes should consistently excel in this predominant characteristic of highest quality merchandise—a distinguishing mark of superiority immediately apparent to trade and public alike.

As we plan the post-war Rittenhouse line, we zealously safeguard this tradition. From among the topmost product designers in the country, we selected that one whose name and achievements rightly enjoy national preeminence. Sparkling new models, brilliantly styled by this recognized design authority, are now ready for production when the facilities of Rittenhouse are no longer required by the Armed Forces.

Again we say, the better door chimes of the future will be Rittenhouse-made. For that warranty of supreme satisfaction which has always been closely associated with the name "RITTENHOUSE", *plan* now with us for a highly successful and profitable post-war business.

THE A. E. RITTENHOUSE COMPANY, INC.
Honeoye Falls, New York

Rittenhouse
DOOR CHIMES

Revere

THE COMPLETE QUALITY LINE

for every

LIGHTING REQUIREMENT

SUPERIOR IN DESIGN

•

EXCLUSIVE FEATURES

•

STURDINESS

•

HIGH EFFICIENCY

•

EASY TO MAINTAIN

•

Incandescent Searchlight for hand or pilot house control.

500 Watt Enclosed (Navy) Type Flood. Rugged—concussion, vibration and exposure resistant.

750-1000 Watt Enclosed or Open Type Floodlight.

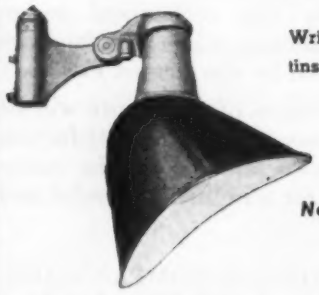
750-1000-1500 Watt Enclosed Type Floodlight. A masterpiece in design and construction.

The ✓ MARKER SIGNIFIES THE BEST

Revere equipment is lighting the paths for the Army and the Navy and on the home front as well.

Write for illustrated bulletins.

Revere Enclosed Type Portable Floodlight. Available in all sizes up to 1500 watts.



Revere Eliptor. Ingeniously designed — neat —streamlined. Gives effective uniform lighting.

Make that *Next, Next* and Next order

Revere

Open and Enclosed Type High Bay Units to suit any job.

REVERE ELECTRIC MFG. CO.

2935 NORTH PAULINA STREET · CHICAGO 13

Originators of the Hinged Floodlight Pole

INDOOR and OUTDOOR LIGHTING EQUIPMENT of EVERY DESCRIPTION

NEMA Recommends 'Home Freezer' Title

The name "Home Freezer" to designate sub-freezing refrigerators for home storage of frozen foods, was recommended by the refrigeration section of the National Electrical Manufacturers Association at its recent meeting in Chicago.

A "Home Freezer" was described as "the household type of low temperature mechanically refrigerated cabinet used exclusively for the freezing and/or storage of frozen food".

This action of the manufacturers association section whose members represent makers of electric refrigerators and other home appliances, was taken to supply a name which would reduce general confusion in this field because previously there had been no generally accepted term or phrase describing this equipment.

Appliance Parts Available Says WPB

Repair services for many domestic appliances are being greatly handicapped because many electrical and mechanical repair shops are not taking advantage of a WPB regulation designed specifically to aid them in more readily obtaining parts and materials for their operations, the War Production Board announced recently to the electrical trade.

The WPB pointed out that the Controlled Materials Plan Regulation 9-A provides that these shops may purchase

AUSTIN DUNHAM, manager in Denver for Anaconda Wire and Cable Co., glances over his speech on wires and cables before presenting it to the Rocky Mountain Chapter, International Association of Electrical Inspectors, at annual meeting in Denver recently.

HAROLD M. PARSONS, newly elected vice-president of Landers, Frary & Clark, was formerly sales manager of that company. Mr. Parsons held the position of vice-president of this company once before, resigning in 1931 to become vice-president in charge of the sales of Crawford electric ranges. He was later connected with Nash-Kelvinator and returned to Landers, Frary & Clark in 1940.

in each calendar quarter up to 20 tons of carbon and alloy steel, 500 pounds of copper base alloy and brass mill and foundry products, and 200 pounds of aluminum in specified forms and shapes. In addition, electrical contractors' electricians, and repairmen of electrical appliances, radios and household refrigerators may purchase in each calendar quarter up to $150 worth of copper wire, or one-eighth of what they used in making repairs in 1941. Under this regulation a repairman may also buy as much other material and repair parts as he needs for his maintenance and repair work.

To buy these materials and parts, a repairman need merely certify on his purchase order, in the form specified in the regulation, that he is applying the allotment symbol of V-3 and the preference rating of AA-3 which has been assigned by CMP Regulation 9-A.

Van Zile Appointed To GE Electronics-Post

R. P. Van Zile has been appointed district manager of the East Central District of the General Electric Company's Electronics Department, accord-

BELfone
INTERCOMMUNICATION SYSTEMS

For complete, swift, private communication between any or all offices, departments, or executives. BELfone speeds inter-office cooperation, clears telephone lines for outside calls, ends wasted steps and time. Economical standard units combine to fill needs of any type or size. Write for details.

BELL SOUND SYSTEMS, Inc.
1197 Essex Avenue — Columbus, Ohio
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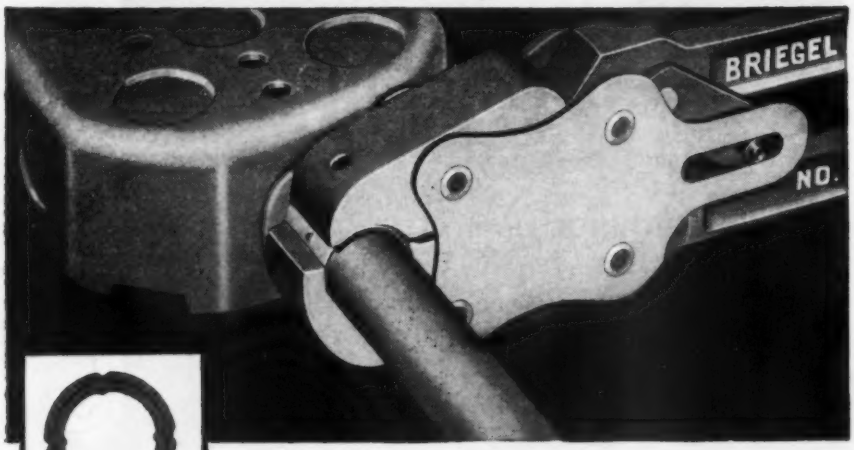
BELL SOUND SYSTEMS



Cross section Showing Indentations.

E·M·T·UP THE QUICK WAY
Two Squeezes and it's Set

TWO QUICK SQUEEZES give you Finer, Faster Conduit Connections. B-M Fittings do away with the twisting, turning and tightening of nuts and save you valuable time and materials. Then too, they are stronger, neater and much easier to work with in tight places. Start using B-M Fittings today. Have more satisfied customers—more profits from each job!

(All B-M Fittings carry the Underwriters Seal of Approval)

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Prompt Deliveries on Properly Rated Orders

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BRIEGEL METHOD TOOL CO. • Galva, Ill.

ing to an announcement from Arthur Brandt, general sales manager of the department.

Mr. Van Zile will be responsible for the sale of all products of the department in this district, and will make his headquarters at the General Electric offices at 4966 Woodland Ave., Cleveland.

With a background of more than ten years sales experience, Mr. Van Zile joined the General Electric Company in 1930 as radio district manager in the Chicago and Pittsburgh districts. Since October 1942, he has been in Washington representing the GE Electronics Department in the sales of communications equipment to the U. S. Navy.

Celebrates 50 Years As Wholesaler

Frank S. Gardner, partner in the W. F. Irish Company, New York, is celebrating his fiftieth year in the electrical wholesaling business. He started in the industry with the former Sibley and Pitman organization on Warren Street in New York and was later general manager of the company when it

Frank S. Gardner is seen here at right with his partners F. V. Hann, left and W. F. Irish, center.

was the first jobbing house purchased by the General Electric Company as the nucleus of the supply corporation which it later formed.

In 1917, Mr. Gardner entered into partnership with W. F. Irish and Frank V. Hann, starting the W. F. Irish Company on 32nd Street in New York. Thirteen years later the company relocated at 40th Street.

In the fifty years of his work in the electrical wholesaling business, Mr.

Gardner has built up a following among the theatre business of New York's great theatrical district. It has been said that he has at times handled up to 95 percent of all the electrical business in this field.

Philadelphia Plan Enters Third Year

The Electric Appliance Service Plan, which was inaugurated two years ago by the Electric Association of Philadelphia, was ushered into its third year at a recent dinner at which detailed plans were given for even more active participation in the plan by the 133 repair dealers present.

Howard Miller, president of the association, congratulated the members on the outstanding success of the appliance plan. "Through organized effort," he said, "the individual can gain benefits which as an individual we would have found impossible of achievement."

Report of N.E.W.A.'s Post-War Planning Committee *(See page 33)*

FORUM SPEAKERS

Stanley Holme
Committee for Economic Development
A. H. Hood
Johns-Manville Corporation
Carl Henrikson, Jr.
Regional Business Consultant,
U. S. Department of Commerce
E. R. Smith
Director of Research,
McFadden Publications, Inc.
F. E. Watts
Executive Assistant, FARM JOURNAL
O. Fred. Rost
Editor, WHOLESALER'S SALESMAN
J. S. Bartlett
Managing Director, The Electric Institute of Washington
W. J. Donald
Managing Director, National Electrical Manufacturers Association
Walter F. Crowder
Chief-Distribution Div.,
U. S. Department of Commerce
E. R. Hawkins
Chief-Distribution Cost Unit, Distribution Div., U. S. Department of Commerce
Prof. Albert Haring
Professor of Marketing, Indiana University, President, American Marketing Association
S. Morris Livingston
Chief of the National Economics Unit,
U. S. Department of Commerce
Donald Hobart
Manager Research Department,
Curtis Publishing Company
Wm. Gordon
Research Department, Curtis Publishing Company
J. M. Bickel,
Vice President, Carrier Corporation
C. W. Green
Public Relations Manager,
Franklin Square National Bank
T. F. Joyce
Manager, Radio, Phonograph & Television Department, Radio Corporation of America

AFRAID OF HIS SHADOW

...And why not?

He *should* be afraid! Experience has taught him that shadows are more than splashes of darkness. They are the enemies of good vision—the direct cause of nervousness, eye-strain and fatigue. And they lead to inaccuracies in precision work, to "fumbling" production.

Helping war workers avoid these unnecessary handicaps occupies the full time and knowledge of Goodrich illuminating engineers. Armed with a complete line of modern lighting equipment, they are ready to help you select the best illumination for every industrial need . . . ready to *light* the way to faster production, with less spoilage, fewer accidents, and a minimum of worker fatigue.

Sold through electrical wholesalers

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MAKE MORE MONEY TODAY
with a TALK-A-PHONE
The Ideal Inter-Comm. Line for Jobbers

Write for colorful new catalog and reference book.

Also Prepare for big post-war opportunity. Here's why you can do it.

1. Talk-A Phone offers America's most complete line of inter-communication. . . . A unit to fill every need . . . to fit every condition. . . Super Chief, Chief, Deluxe and Standard models.
2. Scientifically designed, on fundamentally sound principles. Manufactured by craftsmen of unusual skill. Rigidly inspected.
3. Modern, inviting appearance. They please the most fastidious executives.
4. An extraordinary value for the price. Acknowledged to offer "most for the money". Sales resistance is low.
5. Talk-A-Phone follows a rigid policy of Jobber Protection.
6. You can get delivery now.

TALK-A-PHONE MFG. CO.
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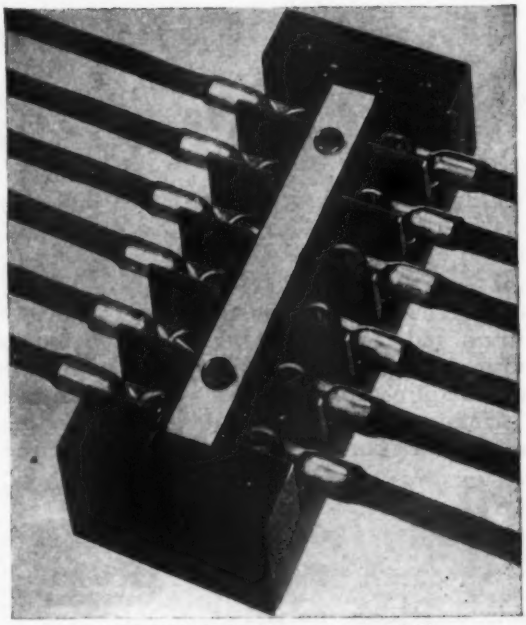
Talk-A-Phone

One of 10 BURKE
TERMINAL BLOCKS...

BURKE bakelite Terminal Blocks moulded under enormous pressure in hardened steel moulds—10 styles for 2 to 12 wires. Designed to go into Dispatching and Traffic Signal Systems, Switchboard, Fire and Patrol Signal Systems, etc. Impervious to moisture—high electrical resistance—fast to install and economical.

Attractive Jobbers Proposition Available. Write for particulars.



BURKE SERIES 7000-50 AMP. BLOCKS

AC AND DC MOTORS AND GENERATORS
BURKE *Terminal* BLOCKS
BURKE ELECTRIC COMPANY • ERIE, PENNSYLVANIA

E. H. ROBINSON, formerly consulting engineer on illuminating problems for General Electric at Nela Park, Cleveland, has just been appointed eastern sales manager for the Fostoria Pressed Steel Corporation, Fostoria, Ohio. He will be located in Cleveland.

Sylvania to Open Lowell, Mass. Plant

Following extensive renovations, a new factory branch of Sylvania Electric Products is scheduled soon to go into production on fluorescent fixture parts at Lowell, Mass., according to information from Lou S. Kimball, manager of Sylvania's fluorescent fixture plant at Ipswich, Mass.

Between 300 and 500 persons, mostly women, will be employed in a building which contains 26,000 square feet of floor space. It is expected to take a month to complete the improvements, which will include offices, rest rooms, a dispensary with nurse in attendance, and other features that promote good working conditions.

EXPORT AGENCIES WANTED

Manufacturers — have your export business developed or increased by experienced export firm with worldwide sales organization, desirous of handling a few additional lines on an exclusive basis.

Address Box 62
WHOLESALER'S SALESMAN
330 West 42nd St. New York 18, N. Y.

Association Notes

BALTIMORE—At a recent luncheon meeting of the Electrical Manufacturers Representatives Association of Baltimore, Maryland, the Permanent Exhibition Committee reported on its findings and the concensus of opinion was, that any effort along this line should be a postwar project.

R. Ridgeley German, 3300 Eastborne Ave., was made a member of the association.

At the regular meeting in April the following were appointed to the Executive Committee: Stanley Dunlop and Samuel Masland.

NEW ORLEANS—The Electrical Association of this city recently held its Executive Committee meeting at the St. Charles Hotel with President Osterberger presiding.

Vice President L. C. Reed reported on the matter of the Air Conditioning and Ventilation meeting to be held in June. It was finally decided to send

SELL TRICO REG. U.S. PAT. OFF. FUSES!

For more than 25 years TRICO has built the finest in renewable fuses — safe and efficient — dependable and non-tamperable. That's a real asset to your own sales promotional program.

Accepted by the trade and specified by leading architects and engineers TRICO FUSES are being installed in ever-increasing quantities.

TRICO'S custom-built *"powder-packed"* renewal element assures you of the repeat business without price competition and the strict "THRU THE WHOLESALER" policy makes them most profitable to handle.

Now is the time to key your selling efforts to a renewable fuse line with a future —

SELL TRICO

THEY'RE "POWDER PACKED"

TRICO FUSE MFG. CO. Milwaukee, Wisconsin

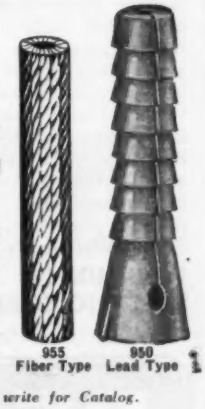
★RECOMMEND PAINE

Woodscrew Anchors

To BUSH Wood SCREW HOLES

• Also for Fastenings in Brick • Tile • Marble • Slate and Wood Furring.

You simply place anchor in hole, insert woodscrew and tighten. No setting tool is needed. Anchor expands uniformly as screw is tightened to assure a firm fastening and a workmanlike job. Available on low priority in a wide variety of sizes.



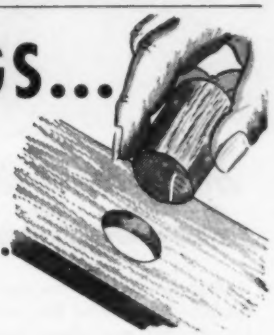
955 Fiber Type 950 Lead Type

Ask your jobber or write for Catalog.

THE PAINE CO.
2952 Carroll Ave. Chicago 12, Ill.
Offices in Principal Cities

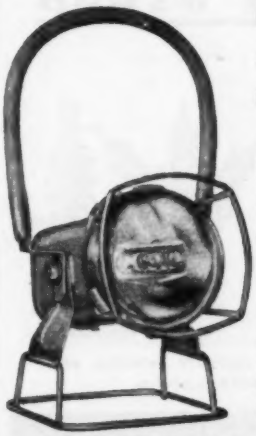
★PAINE★ FASTENING and HANGING DEVICES

YOU FIT ROUND PEGS... TO ROUND HOLES



WHEN YOU SELL JUSTRITE FOR...

factories . . . machine shops . . . shipyards . . . railroads . . . oil fields . . . garages . . . farms . . . mines . . . aircraft industry . . . or homes



Everyday, more salesmen are discovering that selling Justrite Twin-Bulb Lanterns is like putting round pegs in round holes. There's a mighty good reason for it.

There are Justrite Twin-Bulb Safety Lanterns designed especially for work in oil fields . . . in factories . . . in pump-rooms of ships . . . in garages . . . and on railroads. In fact, wherever there is a need for utterly safe light, you'll find easy sales for Justrite.

Write today for complete information on the Justrite line of Safety Lanterns.

JUSTRITE MANUFACTURING COMPANY 2063 N. Southport Ave., Dept. A-4, Chicago, Ill.

JUSTRITE *Safety Products*

SAFETY CANS · FILLING CANS · OILY WASTE CANS
APPROVED SAFETY ELECTRIC LANTERNS

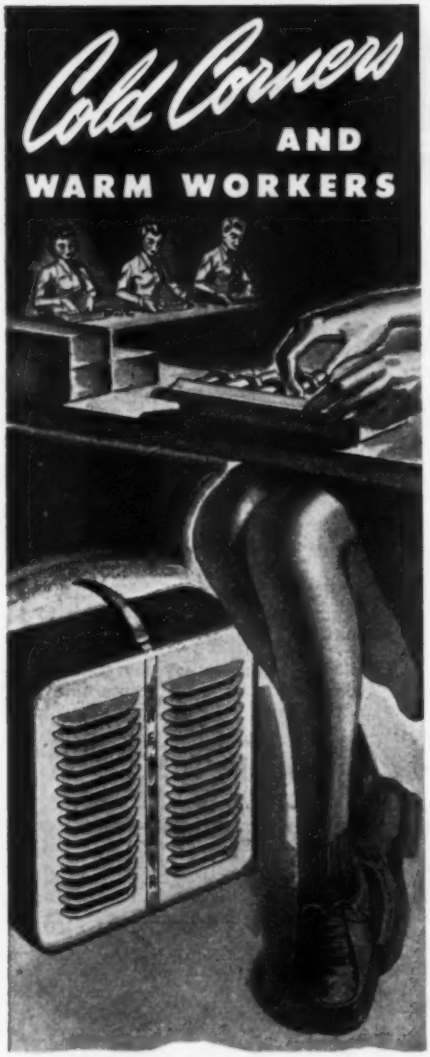
an invitation to Elmer May to address the association on this occasion.

Director of Publicity Clement gave a brief statement regarding the work of the Planning Committee. He was authorized to send an invitation to H. Freeman Barnes to address the association on the subject of "Light in War. . . . And in Postwar Victory" at a special luncheon meeting to be held in the near future.

The association's delegates—Avegno, Guidroz, Guillory, and Clement—attended the Chicago "Edison Electric Institute" meeting held recently at the Edgewater Beach Hotel.

DETROIT—Mr. L. Disser, purchasing agent for the Willow Run Plant of the Ford Motor Company, addressed the members of the Electrical Association of Detroit at a recent dinner meeting held in the new Edison Building. Mr. Disser spoke on the subject of electricity in the plant and in the bomber.

Charles Annett, editor of the *Electrogram* published each month by the association and distributed to its members, announced that he will no longer be connected with the *Electrogram,*



Heats in Winter
Cools in Summer

Aggressive dealers are featuring Thermador Fan Type Portable Electric Heaters for war plants where they are widely used to bring comfort to workers. Clean, compact, and safe, Thermador Heaters are portable and can be placed in cold, damp parts of war plants to improve working conditions.

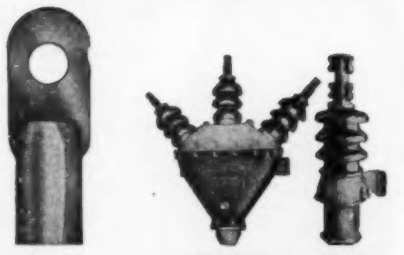
With a flip of a switch, these double-purpose units heat in winter—circulate cooling air in summer. Flameless, fumeless Thermador Heaters are only available on priority orders in portable or built-in types for use on 115-volt A.C. service, 1650 watts capacity, or 230-volt A.C. in capacities up to 5000 watts.

Thermador also manufactures built-in Electric Heaters, Electric Ranges, Electric Water Heaters, and Small Transformers.

Write today for Catalog WS-6

THERMADOR
ELECTRICAL MFG. COMPANY
5119 South Riverside Drive
Los Angeles, Calif.
Seven Leagues Ahead

ELECTRICAL SPECIALTIES
FOR HEAVY INDUSTRIAL SERVICE
FROM STOCK
RMC



Write for a complete selection of RUSGREEN bulletins

ENDULATORS (POTHEADS) ALL SIZES • ALL SHAPES • ALL VOLTAGES • ALL TYPES • BUS SUPPORTS • SPLICING KITS AND MATERIALS • INSULATING COMPOUNDS

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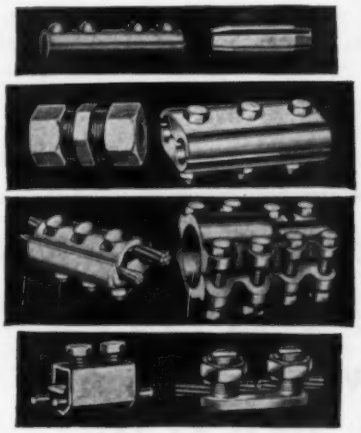
14260 Birwood Avenue • Detroit, Mich.

"It sure is HANDY— to have ALL kinds in One Catalog!"

For any good Straight or Parallel Connector, see the **COMPLETE** *line*

These illustrations can only suggest the wide variety in the Penn-Union Catalog . . . a *complete* line of Bolted Straight Connectors and Reducers . . . Screw type . . . Split Sleeve type . . . Shrink fit . . . Universal Parallel Clamps . . . E-Z Connectors that take a wide range of conductor sizes.



Also . . . the most complete line of Service Connectors, Tee Connectors, Cable Taps . . . Elbow and Cross Connectors . . . Bus Supports, Clamps, Spacers . . . Grounding Clamps, Terminal Lugs.

Penn-Union connectors are the first choice of leading utilities, industrials, electrical manufacturers and contractors—because they have found that *"Penn-Union" on a fitting is their best guarantee of Dependability.*

PENN-UNION ELECTRIC CORPORATION
ERIE, PA. *Sold by Leading Jobbers*

PENN-UNION
Conductor Fittings

Troubles End with COOL FUSES

WARE HI-LAG

LINKS LOCKED IN TO CIRCUIT

NON-HEATING CONTACTS
Keep Motors Humming

ARMY E NAVY

100% Quality
APPROVED BY UNDERWRITERS
Mfgr's. Agents Territory Open
WARE BROTHERS
4420 W. Lake St. Chicago 24, Ill.

WARE
Renewable
HI-LAG FUSES

as he is leaving for Amarillo, Texas, for his health.

The Association's Board of Governors recently appointed the Future Home Committee, to consist of six men who will plan for an adequate home for the association which the members hope will materialize some time in the near future. Chester E. Cook is chairman of the Committee and his fellow associates are: S. P. Ecclestone, Harold Hall, William Hurley, Arthur Jones, and Andrew Rogerson.

MILWAUKEE — The Wisconsin Radio Refrigeration & Appliance Association has reviewed the plans for postwar utility cooperation, as discussed at the recent Chicago meeting, sponsored by the Edison Electric Institute. Frank A. Coffin, representing the Wisconsin Electric Power Company, gave a detailed report of the Milwaukee plan at the Chicago meeting and members of this association, who heard Mr. Coffin speak gained the impression, that the retail appliance dealers of Milwaukee may count upon continuance after the war of the same cooperation policies which the Wisconsin Electric Power Company has maintained for the past several years.

MORE FACTS ON PRODUCTS

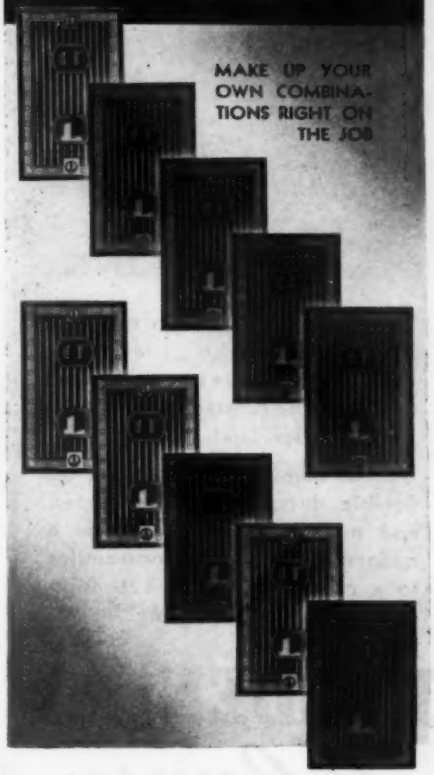
Lightning Arresters—The National Electrical Manufacturers Association of New York City announces the release of a new standard entitled, "NEMA Lightning Arrester Standards," publication No. 44-89. The manual includes general standards which embrace the classification of types, uses, rating, and service condition standards. It also covers methods of test and design tests.

When writing mention WHOLESALER'S SALESMAN

Safety Switches—The American Electric Switch Corp. of Minerva, Ohio, has published a booklet of over ninety pages on its line of safety switches. It includes illustrations and listings of industrial safety switches, service entrance equipment, fuse cabinets, general purpose switches, meter test blocks, outdoor meter devices, solderless lugs, industrial and commercial wiring troughs, lighting panelboards, etc.

When writing mention WHOLESALER'S SALESMAN

IT'S EASY!
When You Do It the P&S-Despard Way!



Take a switch and an outlet . Install in strap (furnished with plate) and you have . All you need is a screwdriver to make up the 10 combinations shown above from these 3 cartons of P&S-Despard devices.

Sold through Electrical Wholesalers

PASS & SEYMOUR, INC.
SYRACUSE 9, N. Y.

Ballasts—Bulletin 441–FL illustrates and describes ballasts for fluorescent lamps as manufactured by the Jefferson Electric Co. of Bellwood, Illinois. The line includes single, two-, three-, and four-lamp ballasts. Data, dimensions, wiring diagrams for ballasts and lamp switches, and comparative mounting dimensions are given.

When writing mention WHOLESALER'S SALESMAN

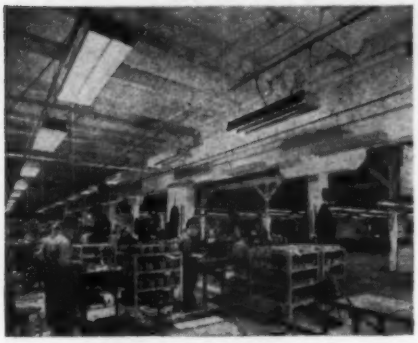
Safety Tool—A small four-page leaflet is published by the Industrial Power and Equipment Co. of Pittsburgh, Pa. which illustrates and describes the company's pocket-size, commutator cleaner —a safety tool for electrical maintenance men, machinists and motor inspectors.

When writing mention WHOLESALER'S SALESMAN

Transformer—details of the type N A S current transformer are contained in bulletin S-502, published by the Standard Transformer Company, Warren, Ohio. Also included in the bulletin are photographs, diagrams, feature listings, and meter correction factor charts.

When writing mention WHOLESALER'S SALESMAN

Unusual Fluorescent



Installation at the plant of the Apex Manufacturing Co., Clevleand, Ohio. Made in 1941 . . . still rated as one of the outstanding lighting jobs in Cleveland Area.

Unique: Luminaires, operating on flexible duct, can be unplugged and maneuvered to transform a maintained level of 50 footcandles to a concentration of 120 footcandles for critical seeing.

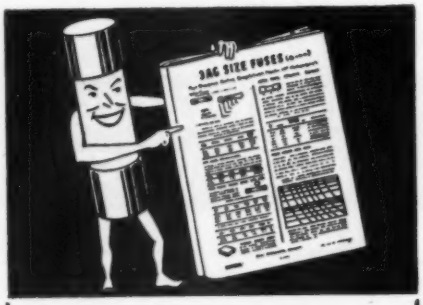
HOLDENLINE *of Course*

Right design, high efficiency and dependability

STEEL REFLECTORS NOW AVAILABLE
(TWO LAMP 40-WATT)
Write for prices

We sell through wholesalers exclusively

HOLDENLINE CO.
Pioneers in Fluorescent
1960 EAST 57TH ST.
CLEVELAND 3, OHIO



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Provides the wholesalers' salesmen with the widest range of fuses

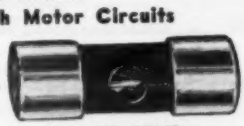
Shop Testing Equipment

For protecting meters and various circuit elements.

4 A G Vacuum Littelfuse

Branch Motor Circuits

Bakelite enclosed. 40 to 80 amps. Mica Window.



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Radios, Auto-Radios, Amplifiers

Low lag. Also for fractional h.p. motors, magnets, etc.

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Hundreds of other Littelfuse products are right in your field.

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FUSIBLE
plugs and receptacles

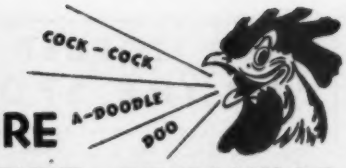
Type FP 2-pole fusible plug

Type LRA receptacle with threaded housing

built for heavy duty service

General Purpose plugs and receptacles are heavy duty types with round prong contacts mounted in molded insulation and with cast metal housings of rugged construction to withstand hard use. The complete range of types includes fusible plugs, cable connector plugs and receptacles, and receptacles in many housing types with conduit fitting bodies in standard styles and sizes. Fusible plugs on extension circuits will isolate a defective device without interruption to other equipment. General Purpose plugs and receptacles are available in 1, 2, 3, 4, and 5 poles, ratings 30, 60, 100, 200 amperes. Write for Pylet Catalog with complete listings of all types.

THE PYLE-NATIONAL COMPANY
1344 N. Kostner Avenue, Chicago 51, Illinois



SURE WE'RE CROWING

VERD-A-RAY

OUTGROWS ITS CRADLE

◆

Public acceptance of Verd-A-Ray has been sensational. On sale in nearly all neighborhood and downtown retail stores it is easy to buy. No new fixtures are required -- just use it as you would any ordinary lamp bulb.

◆

To us who have grown up with this sensational incandescent lamp, the formation of a new and very much enlarged corporation is recognition of accomplishment.

◆

To distributors, dealers and users it is conclusive proof of acceptance by the trade deserving of and assured of broader manufacturing, distributing and merchandising plans.

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To YOU --- sample and literature will be sent without obligation, upon request.

Electrical distributors now selling lamps are invited to write us. Testimony of industrial users adequately supported by qualified scientific research assures turnover. Lamp contract renewals are simplified if you are "in". Sell VERD-A-RAY. It's "V" Day Incandescent Lighting - - Here NOW.

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TOLEDO 5, OHIO

VERD-A-RAY LIGHT IS AN AID TO SIGHT

Capacitors—A forty-page booklet issued by the Solar Mfg. Co. of Bayonne, N. J. describes the company's products in various phases of their war service. Included in the booklet is a 16-page form of official Signal Corps color photographs showing scenes of the front. It also contains a section devoted to capacitors and their place in the postwar period.

When writing mention WHOLESALER'S SALESMAN

Constant Level Oilers—Bulletins 24-A and 25-A describe an automatically controlled visible oiling method for ring and ball bearings, shafts, gear and pump housing, etc. Gives suggestions on how to end bearing failures, reduce motor burnouts, and stop needless shutdowns for hand-oilers. Published by the Trico Fuse Mfg. Co., Milwaukee, Wisconsin.

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Electrical Equipment—A 20-page loose-leaf booklet on the subject of switches and electrical equipment for the automotive, marine, and electric appliance trade has been published by the Ark-Les Switch Corp. of Watertown, Mass. Includes illustrations, specification charts, and descriptions of the various products manufactured by this company.

When writing mention WHOLESALER'S SALESMAN

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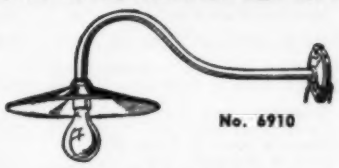

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YARDLIGHTS

Flat Cone Reflector

#6910	10"	Reflector
#6912	12"	"

Shallow Bowl Reflector

#6920	10"	Reflector
#6922	12"	"
#6924	14"	"

Complete with wire
For REA installation

Sold thru Electrical Wholesalers

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on homefronts of *Tomorrow...*

Modern Planning will eliminate circulating odors with

Blo-Fan

"SPOT VENTILATION"

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A card from you will place your name on a special list to receive pre-peace information as it becomes available. We hope you will write us today.

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Branches (to be reestablished after war)
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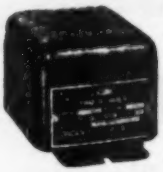
How to Economize On Installation Costs!

The most economical way of providing low voltage circuits for the lighting and operating of machine tools is to run a branch line from the power line, using a transformer to step down the voltage.



Dongan Transformers are being used for this purpose in industrial plants throughout the nation, reducing installation time and also conserving critical materials.

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Maintenance is especially easy since there are no horizontal surfaces on which dust can collect. Hinged louvers make lamp replacement easy.

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Ballasts are only partially enclosed — which means cooler, better operation.

The new Beacon is of all-steel construction. Metal end caps are pierced in a decorative design and are backed up with diffusing, translucent plastic. And you can offer this 4-lamp fluorescent unit in stem suspension as pictured, or with close-up mounting for low-ceiling areas. Get the details NOW from Graybar or write us.

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RED ● SPOT LIGHTING FOR WAR PRODUCTION . . . FOR PEACETIME FUTURE

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General Electric Presents Two More Postwar Lighting Interpretations!

How can the lighting industry give its customers the full benefit of modern lighting techniques in the lighting of postwar homes, stores and offices?

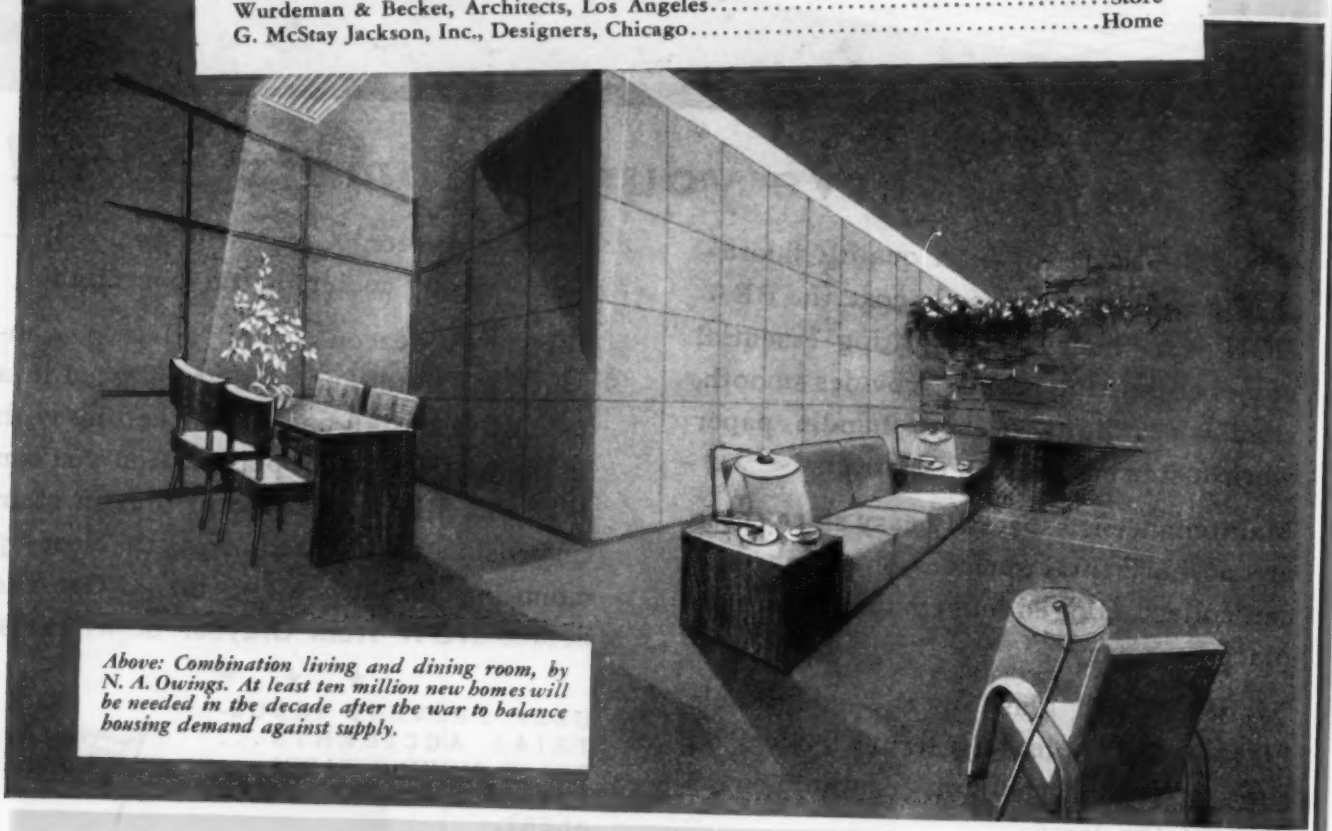
Ten architects and designers have been commissioned by General Electric to work out their answers to that question. Two examples of their work are illustrated below. They contemplate a radical improvement over existing standards, but one that will be practicable with tools that exist today or can be made available quickly as soon as conditions permit.

Complete details of these two postwar lighting plans developed by Mr. Owings and Mr. Arens will be made available in the near future.

Meanwhile, if you would like booklets describing results of the first two G-E commissions, (a postwar food store and a postwar drug store) please write to Div. WSG, G-E Lamp Department, Nela Park, Cleveland, Ohio.

THESE ARE THE ARCHITECTS AND DESIGNERS AND THE JOBS THEY ARE DOING

Morris Sanders, Architect, New York.....Food Store
J. Gordon Lippincott, Industrial Designer, of Dohner & Lippincott, N. Y.....Drug Store
Egmont Arens, Industrial Designer, New York.....Small Department Store
Helmuth Bartsch, Architect, of Holabird & Root, Chicago.....Home
Graham, Anderson, Probst & White, Architects, Chicago.....Department Store
N. A. Owings, Architect, of Skidmore, Owings & Merrill, Chicago and New York.....Home
William Edward Kapp, Architect, Detroit.....Office
Theodore Criley, Jr., Architect, Los Angeles.....Home
Wurdeman & Becket, Architects, Los Angeles.....Store
G. McStay Jackson, Inc., Designers, Chicago.....Home



Above: Combination living and dining room, by N. A. Owings. At least ten million new homes will be needed in the decade after the war to balance housing demand against supply.

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Hear the General Electric radio programs: "The G-E All-Girl Orchestra" Sunday 10 p. m. EWT, NBC; "The World Today" news, every weekday, 6:45 p. m. EWT, CBS.

POSTWAR LIGHTING PROGRESS

Read What People Say About G-E's Design Program:

COMPLETE information on the plans and suggestions of all these outstanding architects and designers is being placed at the service of the architectural profession, fixture manufacturers, lighting companies and the potential buyers of better lighting. Advertising coverage includes scores of magazines.

Dozens of comments already have been received, welcoming the project as a major contribution to better postwar lighting. These are just a few:

"Will greatly assist in stimulating postwar lighting business."

"You are to be congratulated for the development of these visualizations."

"Installations of this kind are certainly right up our alley."

"All of us here feel that you are taking a very constructive step to higher lighting standards in anticipation of tremendous postwar activity."

"You could hardly have selected a theme of greater current interest."

"Should prove of great interest to all who are now attempting to formulate their postwar modernization plans."

"The architectural program on postwar lighting is certainly a good one and, from our point of view, it is mighty encouraging."

This department store budget shop by Egmont Arens, is typical of the way modern lighting for selling can be put to work in the 1,500,000 commercial establishments that will need relighting after the war.

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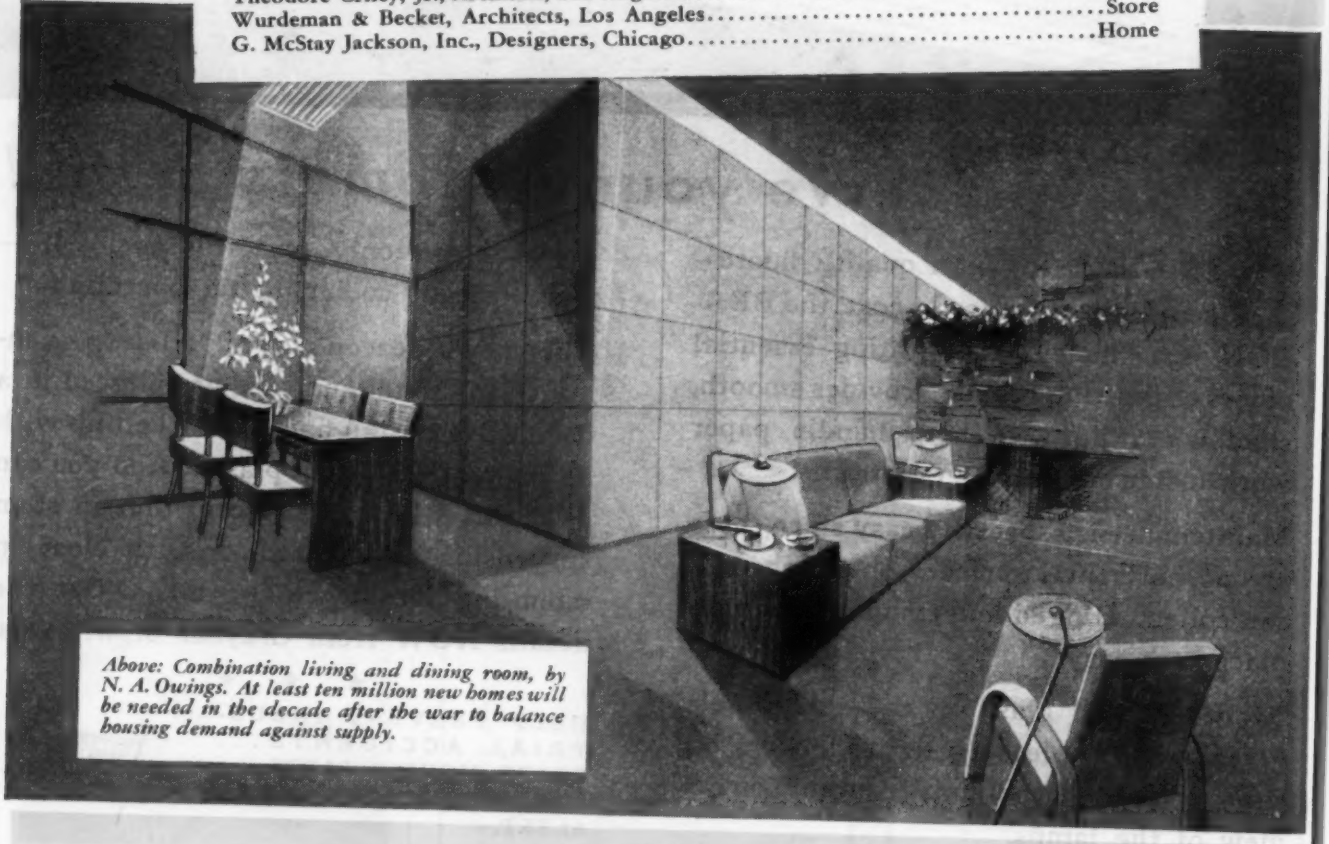

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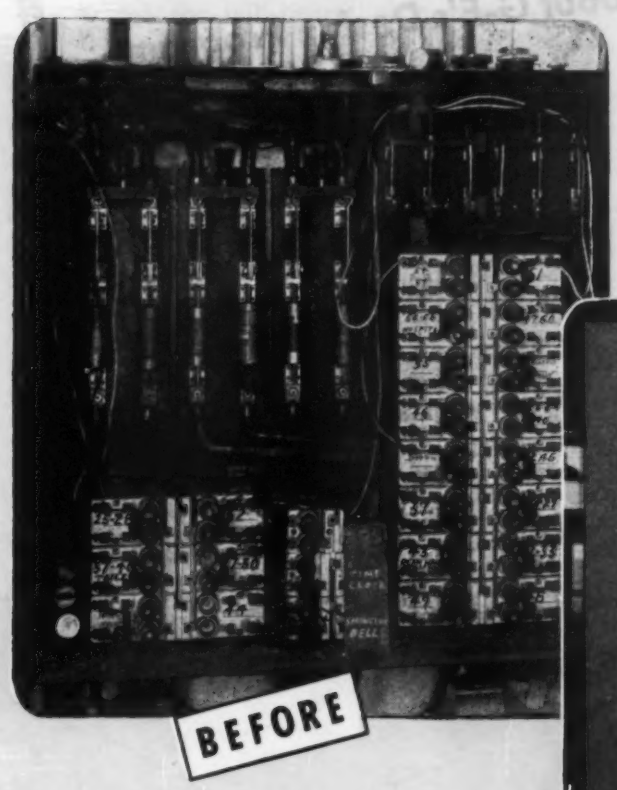
No Plant Too Large *or too small* To Profit by this SQUARE D *Conversion Plan!*



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